

# GREEN VALLEY

>>the amazing art of weiweihua's fantasy world



## JOAN OF ARC

>>continuing complete monthly tutorial for Maya, Lighwave, C4D & XSI

## SIGGRAPH '05

>>Sony Pictures ImageWork's Julian Sarmiento reports from LA

## KRISHNAMURTI M. COSTA

>>an interview with CafeFx's award winning new character artist

## BLUR STUDIO'S PAUL TAYLOR

>>director of the oscar shortlisted 'In the Rough' and 'Aunt Luisa'



## 3dcreative

www.3dcreativemag.com

ZOO PUBLISHING  
www.zoopublishing.com

EDITOR  
Ben Barnes  
ben@zoopublishing.com

ASSISTANT EDITOR  
Chris Perrins  
chris@zoopublishing.com

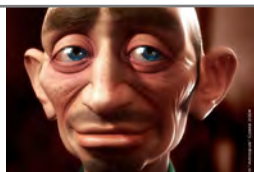
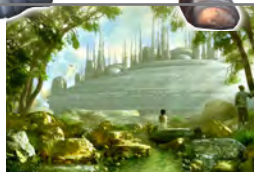
MARKETING  
Kelly Payne  
kelly@zoopublishing.com

ARTICLES  
Julian Sarmiento  
Andy Kay  
Richard Tilbury

INTERVIEWS  
Paul Taylor  
Weiwei Hua  
Krishnamurti M. Costa

TUTORIALS  
Richard Tilbury  
Taylor Kingston  
Luciano Iurino  
Vojislav Milanovich  
Giuseppe Guglielmucci  
Jukka Tahtinen

GALLERIES  
Caroline Delen  
Frank Sennholz  
Mario Ucci  
Adel Adili  
Peter Sanitra  
Neil Maccormack  
Richard Minh Le  
Raphael Lacoste  
Anton Persson  
James Ku



## CINEMA 4D



cover story

articles

interviews

reviews

tutorials

galleries

competition

005

## GREEN VALLEY

the amazing fantasy world of weiwei hua

009

## SIGGRAPH 2005

all the news from this years event in LA

016

## A CAREER IN 3D

So you want a job in the 3D CG industry?

023

## PAUL TAYLOR

director of 'In the Rough' and 'Aunt Luisa'

028

## K.M. COSTA

CafeFx's award winning new character artist

033

## CINEMA 4D 9.5

Andy Kay reviews Maxon's latest release

036

## JOAN OF ARC

Remade for Maya, LW, C4D & XSI

038

## THE CORRIDOR

by Richard Tilbury for 3ds Max

043

## WARRIOR

a project overview by Jukka Tahtinen

051

## 10 OF THE BEST

Caroline Delen, Frank Sennholz, Mario Ucci, Adel

Adili, Peter Sanitra, Neil Maccormack,

Richard Minh Le, Raphael Lacoste & Anton

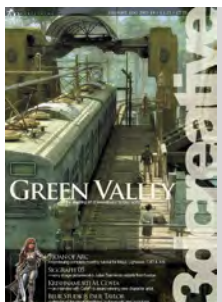
Persson

055

## ART OF RIGGING

we have 5 copies of CGToolkit's essential

book up for grabs!



## WELCOME

to the first issue of  
3DCreative Magazine  
A digital publication  
for CG creatives  
around the globe.

3DCreative Magazine will focus on techniques, tutorials, interviews, articles, project overviews and galleries. We will have news and reviews too but we find that these topics are best covered by the online news and CG sites that thrive on daily updates. Our magazine will focus on becoming more of a timeless resource for artists to turn to again and again whether you view it from your screen or choose to print it off.

## TECHNIQUES AND TUTORIALS

We have packed the first issue out, the big selling point for many will be Michel Roger's famous 'Joan of Arc' tutorial now in Maya, Lightwave, C4D & XSI. 3DSMaxer's are treated to the start of Richard Tilbury's 'Corridor Series' (Which is not a dull as it sounds!) and 'The Warrior' by Jukka Tahtinen.

## INSPIRATION

The cover feature of Weiweihua's artwork is simply breathtaking, read the interview and stare in awe at the Fantasy World this guy is creating. Our second interview with Krishnamurti M. Costa gives another insight to the working processes of this top digital artist. The inspiration continues with our galleries showing a selection of 'Ten of the Best' recent digital works and you can read on with the first of our Career's Guide series "A route through education" and our monthly Industry artist interview with Blur Studio's Paul Taylor talking about two of their recent shorts "In the Rough" and "Aunt Lisa".

## INDUSTRY

Well I know I have said we are focusing on more timeless, resource based content but we just couldn't help squeezing in a few more pages of industry happenings and reviews. Julien Sarmiento reports on the year's main event - Siggraph 2005 and Andy Kay reviews Maxon's latest Cinema 4D 9.5.

So! Read on, be inspired, be enlightened and enjoy 3DCreative Magazine's first issue!

## ABOUT US

Zoo Publishing is a new company comprising of a small team here in the Midlands UK.

This magazine is our first project which we are hoping with the support of the community will build into a great resource and a highly anticipated monthly release. The 'Support of the Community' is an interesting point, where a 'magazine for 3d artists' is not an original idea, the marketing and distribution of this magazine as far as we know is a first. It follows the principle of traditional magazines that are sold on news stands and in many outlets but being a digital downloadable mag the many established web communities on the net are our outlets and newsstands. This first issue is supported by 3DKingdom.org, 3DLinks.com, 3DTotal.com, 3DValley.com, CGChannel.com, CGFocus.com, CGUnderground.com, Daz3D.com, Deathfall.com, the3DStudio.com and Vocanson.fr and we look forward to lasting and successful partnership with these CG community sites.







Interview



## AN INTERVIEW WITH WEI WEI HUA

**Hi, could you tell us a bit about yourself?**

Hi my name is Wei Wei Hua im 28 years old, Chinese, and now working in Paris for a CG studio. Im interested in fantasy art and cinema environment. I love to design everything from buildings and scenes to spaceships and characters.

**What first got you started in 3D?**

The first time I started to work in 3D it was for a architectural design company in China in 1996, using PC's and 3dstudio Max 4 with DOS and so thats why now I'm a 3dsmax user.

**Could you tell us the story behind your fantasy world Green Valley?**

It is a long story based in the future. Green Valley is a planet far away from earth, a fantasy world that has its own community, culture and history. In the future, a new world is created, whereby human kind live hand

in hand with the communities on the Green Valley planet. However, inevitably, war erupts between the future of mankind and Green Valley. From a personal point of view, I hope to relate the story to the youths of present







day. In total there are three parts to the Green Valley story. I have finished one of three parts but there is still a lot of design work needed to complete the story, such as the culture, the different buildings, the creatures of the Green Valley and the design of these characters.

Only my spare time is dedicated to the project so progress is very slow. But I really enjoy it.

**All the scenes that you have done have a tremendous amount of detail, do you work on this in the concept stages of production or do you add it in as you model?**

Usually I like to add in all the details when im modelling, but if there are too many polygons in one scene, I have to render these elements that I wish to add seperately and compose them into the final image in Photoshop.

**Have you ever thought of creating an animated feature on your world?**

Yes, I would like to make some kind of short animated feature to introduce my story.

It would be great making it into a movie.

However, it is a long story and I don't think I can finish it on my own. Only now am I in the working process of scenarios, designs and scenes. In the future, I hope I can eventually work with a company that takes interest in my story.

**Where do you get all the inspiration from to produce such visually stunning scenes?**

I get a lot of the inspiration from the work of other top designers and movies, especially science-fiction movies. I also get inspiration from music. I would imagine a scene when listening to my favourite tunes. I also take photos on my travels. A lot of scenes are from real life. The designs as well as the working scenes, are all based on elements of real life. I believe that the soul of excellent work is dependent on both ones ideas and skills.





**How long does it take to produce one scene. From concept through to final rendering?**

I normally take about one month to produce one scene in my spare time, including final rendering.

**Which part do you enjoy the most?**

I think I love it all, First I draw the schematic diagram on paper to make my mental image of the concept clearer then make the concepts to model, then texture, then lighting, then

animate, you see I love all the details about it.

**What would be your ideal job?**

I like movies and animated features. My ideal job would be related to this, especially in 3D animation and the games design.

**Where do you see yourself in a 10 years time?**

In 10 years time, I think I would work between Europe and China. I will keep making my stories and CG designs. I hope





I can eventually work with a company that is interested in my stories and make them into a movie.

**Who inspires you artistically**

I think films inspire me artistically. When I was young I liked to watch movies, especially science fiction ones. I still remember the impassioned feeling I had when watching Star Wars.

**What has been your greatest accomplishment?**

As of yet, I don't have any greatest accomplishment. But I think the Green Valley will be my greatest accomplishment.

**One piece of advice to any aspiring artist?**

It is very important that you love your job. It can make you happy and you can produce satisfying work. You also have to treat your designs seriously. If you want to make people feel touched by your work, you have to feel passionate about it first.

INTERVIEW : CHRIS PERRINS







Siggraph



JULIAN SARMIENTO  
shares his experiences from this years SIGGRAPH event.





Just like every year AGUA (Alias User Group) start siggraph with a bang. Once again the awaiting crowd que in line for blocks, with an expectant anticipation. The Orpheum was the perfect venue for a event of this magnitude, comfortable seating and a great environment to enjoy every single minute of the impending 5 hour presentation. Starting with the big expected announcement of the release of Maya 7. Rumours promising so much from this unique new version of Maya have been circulating for some time, and this presentation only served to cease them being rumours and turn them to cold hard fact. Most of the newly announced features presented were plenty to impress an eager audience, such as the introduction of a library of dynamic hair with the power to translate to multiple characters and the control to paint the weight of blend shapes allowing the user to control the amount of influence. One of the biggest new tools releases is the power to make modification to the master model and transfer the changes to all the target blendshapes.

“AS ALWAYS MAYA PROMISED AND DELIVERED A NEW VERSION SO POWERFUL, YOU CAN NOT IMAGINE LIFE WITHOUT IT.”

It is not news that Maya is incorporating the power of MotionBuilder into the Maya program, but Maya 7 will be able to make smart rigs that transfer energy and power throw to the whole rig making it fully dynamic, with features like floor contacts and seamless transfers of constraints between Maya and MotionBuilder. Another big announcement was the release of

MotionBuilder 7 along with it's new features. An additional presentation was put together from the guys at Media labs discussing how they used Maya technology for visualization on space missions. Intel then took to the stage and introduced the 64 bit technology whilst illustrating the power this will give to Maya and how much this will improve productivity by offering bit rates which can use up to 1 terrabyte of ram. To finish up the event, ILM Animation director Rob Coleman showed

“DO, OR DO NOT.  
THERE IS NO TRY.”

how indispensable Maya has been in the production of films such as Star Wars, and how it is being utilised all the way from concept and animatic, to final layout and animation. This was one of the highlights of the evening, keeping an ever attentive audience glued to their seats. New technology was also showcased in the lobby, while outside it was time for the traditional obligatory party with free drinks and food for everyone. Time to relax and talk to good friends or just to 'Network', the party went all the way into the night. And, lets not forget the collectible t-shirt of the year featuring 'Yoda' with the "Much to learn you still have" advice printed and on the back to finish things up the AGUA logo and a small sentence "Do, or do not. There is no try", inviting you to the Maya master class.

The important message from the evening was that as always, Alias promised and delivered a new version of Maya so powerful you can not imagine life before it.





3ds max

Autodesk®



AutoDesk started the Siggraph week with a great presentation to a full house at the Marriott hotel, Beginning with the anticipated release of 3dstudio Max version 8. Playing on their strengths, Autodesk introduced the multitude of different areas of the industry in which max is used, and displaying AutoDesk's active efforts to please the entire user base by adding new features and improving the software to their specifications. The future of Max on a 64 bit environment (as with most software releases this year) was one of the main features. Supported with a heavy scene, demonstrations showed max's ability to handle micropolys with no problem, whilst simultaneously speeding up production. More feature introductions highlighted the Asset Management

*"Share, control, and manage your work-in-progress assets using Asset Tracker, the new source control solution compatible with existing asset management solutions."*

Blur Studio's Tim Miller took the stage to talk about how important 3ds Max is for Blur, and by saying how year after year he always aims to select the best tool, and that and that tool year after year is max. Overall the user group was full of high expectations that were suitably fulfilled by the combination of innovative new tools and the high recommendations of high profile Industry Professionals.

JULIAN  
SARMIENTO  
takes a tour of this  
years Siggraph...



What better location to host siggraph than Los Angeles in sunny California USA.



Every year siggraph brings together people from all over the world for one reason only; to learn. This is no doubt the biggest educational week of the industry. Tuesday 10 am the doors open and everybody runs to be the first one to get a glance to the new advances of the industry.

**"SIGGRAPH BRINGS TOGETHER PEOPLE FROM ALL OVER THE WORLD FOR ONE REASON ONLY; TO LEARN."**





**Autodesk®**

[www.autodesk.com](http://www.autodesk.com)



As soon we get to the floor the first thing we see is the big Autodesk booth showcasing max, combustion and all the products. This is one that is full of surprises all around, classes from the front, demos on the sides and beautiful art work all over the booth walls. With



a hot lineup of key customers showcasing how Autodesk tools brought their most daring and ambitious concepts to life, the booth included presentations from The Orphanage, Platige Image, Zoic Studio and more.

**SOFTIMAGE® | XSI®**

[www.softimage.com](http://www.softimage.com)

Next to it the SoftImage booth with great demos and a great real for that ones that like that eye candy. Avid Computer Graphics announces SOFTIMAGE®|XSI® v.5.0 digital character software designed with a gigapolygon core to handle ten times the detail

for next-generation productions and take full advantage of 64-bit platforms.



**Disney**

[www.disney.com](http://www.disney.com)

As you start walking around the floor it is hard to miss the Disney Booth with it's eye catching poster of Toy Story 3 Recalled". The



booth looks amazing with lots of clips from chicken little as well some more beautiful artwork. The Walt Disney Company used this booth in the main exhibition hall as this week's headquarters for WDFA's ongoing effort to recruit new CG artists & animators to come work for WDFA. A big part of this year's recruitment push came with its "The Legacy of Disney Animation" presentation. Putting



legendary animators like Glen Keane on stage during a two hour long special session in an effort to sell conventioners on the idea that WDFA -- not Pixar -- is the place that talented CG artists should really want to work in the coming years.

sony pictures  
**imageworks**

[www.imageworks.com](http://www.imageworks.com)

Next to Disney the always amazing and furious Sony Pictures Imageworks and SPA (Sony Pictures Animation) displaying a couple of very interesting posters, Surf's Up and Monster



House Not many clips or videos but definitely some very appealing and intriguing posters which make you think and smile about the future of CG movies. Can this really be the competition for Pixar? Only time will tell...





The figure drawing class is always a people pleaser! How many times a year you get to



learn from Artist Karl Gnass, Sony Pictures Imageworks Human Anatomy expert and teacher and get a free t-shirt all in the same hour! In a Special Session at the IMAX Theater at the California Science Center, visual effects supervisors, artists, and technologists show how they transformed Robert Zemeckis' painterly film 'Polar Express', into an exciting IMAX escapade. This unique session featured footage from "The Polar Express" and some very early glimpses at a Sony Pictures Imageworks project still in production, both in true 70mm stereoscopic IMAX.



[www.dreamworks.com](http://www.dreamworks.com)

DreamWorks didn't stay behind. This year they were really happy to announce production of their new CG films, including the much-anticipated "Bee Movie". It is always hard to get around this booth since there seem to be so many people trying apply for work at DreamWorks. On the heels of a successful worldwide launch of its latest computer-



animated feature, "Madagascar," DreamWorks Animation this year had its biggest presence at Siggraph. With more presentations than any other major studio this year, DreamWorks Animation presented four courses, two panels and seven sketch presentations. The studio also chaired three sketch sessions and two "birds of a feather" talks.



[www.rhythm.com](http://www.rhythm.com)

Another Studio showing their work as well looking for new talent were Rhythm & Hoes. On the east wing of the show floor they



brought a lot of attention to the other areas of the event and at times clearing the very populated middle area. The Academy Award winning 3D computer animation and special effects studio, is most recently known for its work on such projects as the Coca-Cola Polar Bear commercials, features like "Babe," "Batman Forever," and "Nutty Professor" as well as inter-nationally acclaimed motion-based ride films and interactive video games for the Sony PlayStation.



[www.ilm.com](http://www.ilm.com)

How can we talk about siggraph without talking about ILM. They were there, but this year with a different strategy. Since everybody was giving away free software, hats and even motorcycles, ILM decide to make their fans pay for merchandise. So, if you got to see someone on the floor walking around with an ilm shirt it was because they paid for it. That's right, ILM were selling the t-shirts! that does say much for a company that is suppose to be number one. Anyways - great booth. ILM OpenEXR maintainer Drew Hess, researcher



Florian Kainz and developer Wojciech Jarosz officially announced the OpenEXR Birds of a Feather meeting during SIGGRAPH.



[www.pixar.com](http://www.pixar.com)

Pixar were there introducing "Cars" the next Pixar movie and on closer inspection around the booth I found myself in the amazing world of Renderman and all its new features. Pixar demonstrated the latest advancements to RenderMan Artist tools, Pixar's suite of tools designed to bring the full power of RenderMan to a production facility.





explaining how this particle technology will change the industry with in the next year, but I have the feeling the next Siggraph in Boston will be a lot different, and hopefully we will get to see some really innovative cool stuff up for release there in 2006.



On a cool note, Alias, Intel, Ati and Boxx were giving two motorcycles a way with a retail price of over \$100,000 US dollars!



Over all Siggraph did not have the intensity of years before. It looks as if the hype and the energy of past years were still here for 2005 (and it is always nice to see new products features), however, it is kind of hard to get motivated when some packages are playing catch up or they just release the new features with different names.

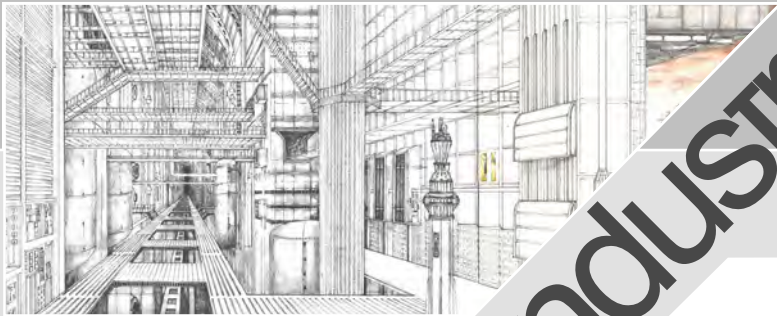
There was not really anything totally amazing that will make me write pages and pages



JULIAN SARMIENTO (right)

With a promotional poster for his current project "Monster House" at Sony Pictures Imageworks

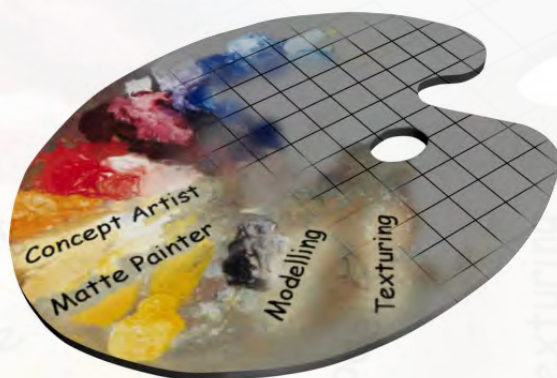




# Industry

## A CAREER IN 3D COMPUTER GRAPHICS PART ONE

I WANT A JOB IN THE COMPUTER GRAPHICS INDUSTRY BUT WHERE DO I START?



Computer Graphics is an area of industry that is expanding at a fast rate right along with the technology that goes hand in hand with it. It has over the years opened up many avenues in terms of the types of jobs available to aspiring artists. There was a time when anyone keen to work creatively within a digital realm, would have needed some knowledge of mathematics or at least a basic grasp of a programming language but with the advent of 3D software the boundaries began to shift and now can accommodate people from a purely artistic background.



I want a job in the computer graphics industry but where do I start ?

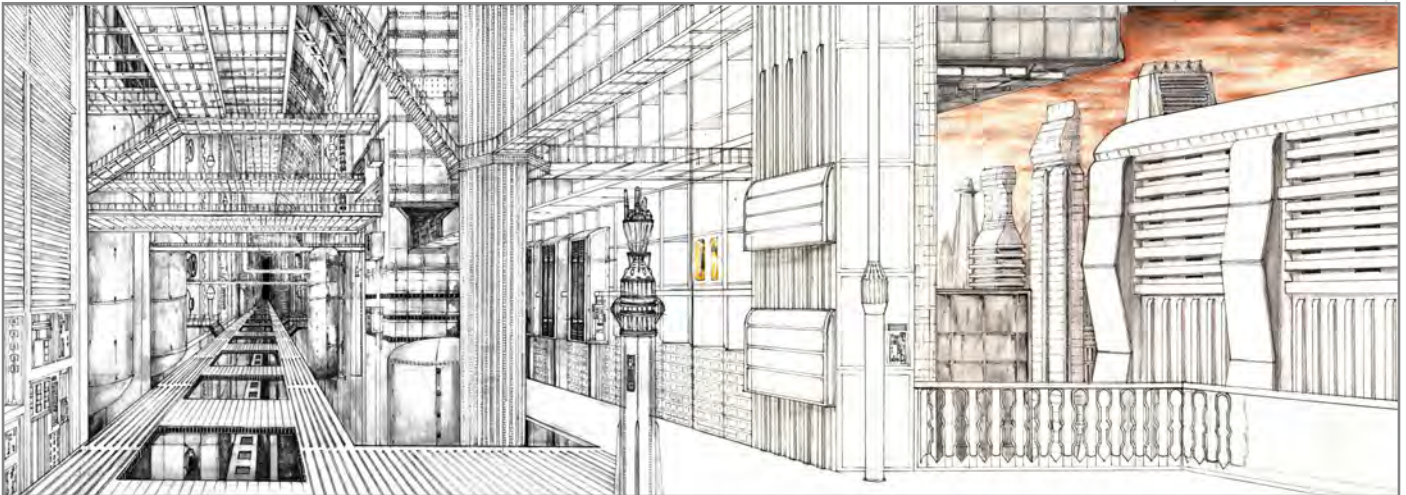
The types of current 3D packages around now are priced within the range of many individuals and are not exclusively affordable to companies and development studios. With this in mind it has made it generally far easier for someone who has only ever used a pencil or brush to pick up a graphics tablet or mouse and apply their skills and understanding to use in a digital format.

An interest in a creative endeavour can be

complete change but are wondering what to do next, then help is at hand. You may have always been keen on drawing or painting but never considered it as a career until now, or perhaps you have only ever used a PC to check your e-mails and are now wondering what steps to take in order to get on the path to a job in computer graphics.

No matter what your route or background the one thing you will need to secure a job is some evidence of your ability and skills in the form of a portfolio or showreel and this applies to almost every job with artistic scope and

honoring your skills and gearing your work towards a specific job application. For some this decision will be easy and clear cut but for others however, things may be a little more blurry and until they have had some experience of a number of fields and they will not know which areas to specialise in and the type of work they wish to produce. It is for this reason that a college or university course can supply a valuable learning aid in filtering ones interests down to a few important disciplines and hopefully help towards making a decision over which path to follow and in which area



sparked at any point in ones life and will often find an initial outlet on paper with some incidental scribbles using a few crayons or a handy biro. However with the adoption of a digital medium being integrated more and more into the workplace and the various areas of creative design, it has become an almost staple requirement for many to have an understanding of the skills related to this discipline. As a result many artists no matter what their chosen field, be it car design, architecture, exhibition design or animation are now expected to have a working knowledge of one or many software packages.

So whether you are simply finishing your schooling or already in a job and have discovered an artistic calling and now want a

**“IT IS THE PORTFOLIO THAT IS THE FIRST THING THROUGH THE DOOR WAY BEFORE YOU EVEN GET A CHANCE TO SELL YOURSELF VERBALLY.”**

will be key in your becoming successful. The content and style of the work you produce will be governed by your own personal interests and what appeals to you artistically, but that is not to say that other factors cannot and should not dictate how you go about structuring your portfolio. There are numerous areas of expertise that fall under the banner of “Artist” and realising which one of these is relevant will be an invaluable aid when it comes to

of industry to aim for. The courses aimed at training people for jobs in the computer graphics industry are becoming more prevalent each year with a number of foundation and intermediary based curriculums being set up through to degree and the more advanced Masters level. All of these specialise in different areas and vary from school to school but the main thing is that there is an increasing number of choices available to people, offering access to a wide variety of powerful and expensive software as well as providing established routes into the industry. They are one of the most proven ways of breaking into your chosen career and also attract a wide circle of established industry veterans in the form of guest speakers and are keenly



monitored by companies wishing to recruit new talent. As with a job application these courses often require visual evidence before any applicants are interviewed for the selection process and so it is the portfolio that is the first thing through the door way before you even get a chance to sell yourself verbally. This is why a strong portfolio will always carry a lot of weight and may often take precedence over qualifications if it is of a high enough quality.

What will follow is a list of some of the more common career paths and a few of the skill sets required by each. Before I go into this I want to discuss some of the principals that are sympathetic to all of these and a few general rules that underlie the success at which most of these positions can be fulfilled. Although these numerous career paths differ they do nevertheless have one thing in common - they all involve a visual language and are essentially artistic in nature but use continually evolving and highly technical tools as a form of expression. As already touched upon, the value of a portfolio or showreel is paramount in securing a job and the great news is that you do not necessarily need a computer or

any expensive 3D packages or even any knowledge of 3D software in order to begin your training as an artist. The

fundamentals of composition, colour theory, perspective, anatomy, movement and of form and space are all principals that are crucial to a lot of work carried out in the digital arena and can be learnt and refined on paper before even looking at a monitor. In certain situations, depending on the job title a prospective employer may be interested in seeing sketches and drawings in order to get a further insight into an applicants ability as this is where many weaknesses will show up more readily than in CG work. Someone who understands

the basic theories outlined above will almost certainly have a head start when sitting in front of a computer for the first time compared to a person lacking this knowledge as these skills are easily transferable and as relevant on paper as they are on a computer. After all computers and 3D software are simply tools, albeit complicated ones but tools nevertheless just as pencils and brushes are.

### 1. CONCEPT ARTIST

This is perhaps the most traditionally based job title of all as it involves a lot of work done on paper in the form of rough concept sketches and small scale colour studies. The types of subject matter covered can be almost infinite and depends on the project in question but a concept artist is someone equally valid in a film, TV and Game environment and will always be in demand especially since they often govern the style and look of a production. They will be called upon to come up with design styles, character designs, create environments, and even colour schemes as well as ensuring there is a consistent look

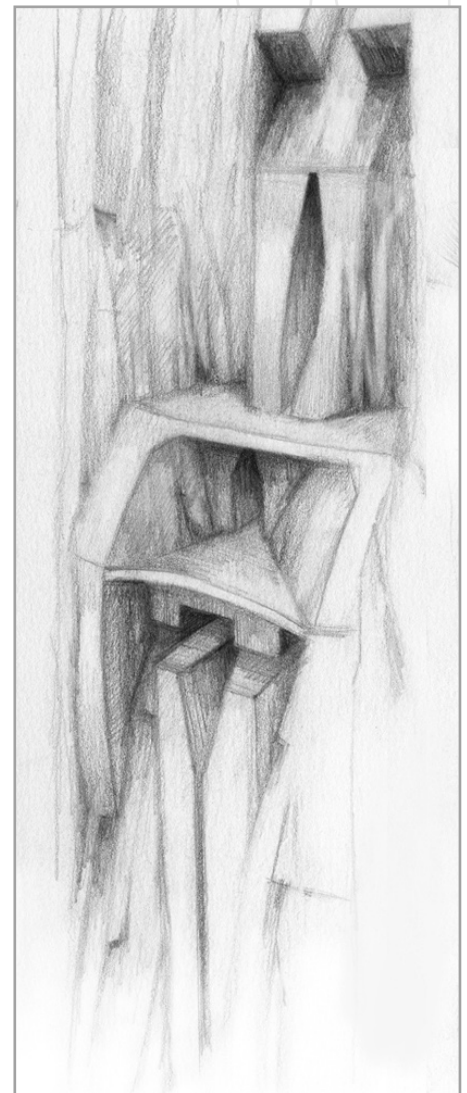
and feel throughout the project. This field will require good traditional art skills and a good drawing ability will prove invaluable. Drawing from

life and observing people will help increase your knowledge of anatomy and proportion along with as much sketching as you can fit in and would be crucial to a storyboard artist working at Disney as well as character designer in a games company. In terms of environmental concepts, becoming acquainted with theories of perspective and looking at both buildings and landscapes will also be of benefit as well as perhaps the use of a camera. Photography can be a useful aid when trying to mimic light in an image and can equally be

used to gather much reference material. The real trick in becoming a good concept artist is to practice and practice more, but it is not something that can really be taught completely. You can certainly improve your skills as a draughtsman but practice alone cannot turn anyone into an established artist in their own right. Courses centred around drawing whether it be industrial design or book illustration would help improve your knowledge and skill as well as more fine art orientated ones. It is best to pursue your interests

when choosing a college course and finding something that suits your sensibility because once you have the essential skills under your belt it will be relatively easy to adapt these

**"GOOD TRADITIONAL  
ART SKILLS AND A  
GOOD DRAWING  
ABILITY WILL PROVE  
INVALUABLE.."**





to different contexts in industry. The kinds of software appropriate in this arena would be 2D programs such as Photoshop and Painter as much work once it is done on paper is scanned into a PC and re-touched digitally to reach a final state of completion.

## 2. MODELLER

A modeller is someone who will dedicate their time to creating meshes based upon specifications set down by the concept artists. He or she will often be given a drawn template of a character or vehicle for example and will be required to build a 3D version that resembles it as closely as possible. In the case of games development they will undoubtedly have a number of restrictions imposed upon them concerning the hardware and game engine such

as poly counts and mesh topology. In film production there is generally a freer reign in this respect and more detail will be afforded to the artist. Within a fine art framework this job is more akin to sculpture and is purely about form and volume and so any experience in this background will have advantages. Someone who has had practice building maquettes and small scale models for example will certainly have a useful skill set when it comes to modelling on a computer. Being able to visualise things in 3 dimensions and being aware of form are a couple of the key assets useful in this field but again being artistically proficient will also be of help. An observant person will inevitably create a more accurate model and have a better understanding of how it can be built efficiently, which will certainly benefit the animators and texture artists. Again

course based on drawing from observation coupled with 3D design that involve model making would lend themselves sympathetically to this type of job but also from a character modellers point of view any experience of drawing from life and study of anatomy would also

be a notable advantage. Any kind of 3D package is of relevance here as they all deal with similar principals so software such as Maya, Max, Softimage, Lighwave, Cinema4D etc will measure up equally. Each

has its strong points and some may be better suited to certain tasks more than others and most will argue this but from a beginners standpoint all will prove to be valid. Each company has its own type of software and this may well in the end be a deciding factor when applying for a position as no-one is well versed in everything. If you are familiar with their chosen package you will be up to speed



immediately and will not require training. As a modeller you may well specialise in an area such as characters, vehicles or environments depending on your ability but often you will be required to build any number of things depending on the project in hand and so having a grasp of the various techniques and features of a program will be necessary.

## 3. TEXTURE ARTIST

The role of the texture artist is to apply descriptive surface detail to a mesh by way of a painted texture map which will wrap around the geometry using mapping co-ordinates. It is essentially a 2D job but is done almost exclusively on a computer although freehand drawings and photography are also applicable here as a starting point. The artist will either be required to map and unwrap a model or as is often the case will be presented with a template that represents the mesh in a flattened state usually in the form of a set of wireframe guidelines. He or she will then







open this up in their program and begin to digitally create the painted effect using a number of brushes and effects within the software. Within a games context there are once again many limitations imposed upon the artist to do with texture memory and off course the hardware, and so the maps will be of a far smaller resolution than those used in film but the principals remain the same. The kinds of software needed for this are similar to those used by the concept artists, ie. Photoshop, Painter but if the artist is asked to map any of the meshes or try out the textures on the models then some rudimentary knowledge of one or so 3D packages will be necessary. Texture artists along with most job descriptions are sought after in film, game and TV environments and it is just the types of projects that will differ in the main but subjects such as characters, props and environments will feature heavily in both instances. A grounding in painting and drawing is important to this particular job whether it be fine art or illustration but the types of tasks set will often dictate the kinds of skills needed in the end.

## 4. ANIMATOR

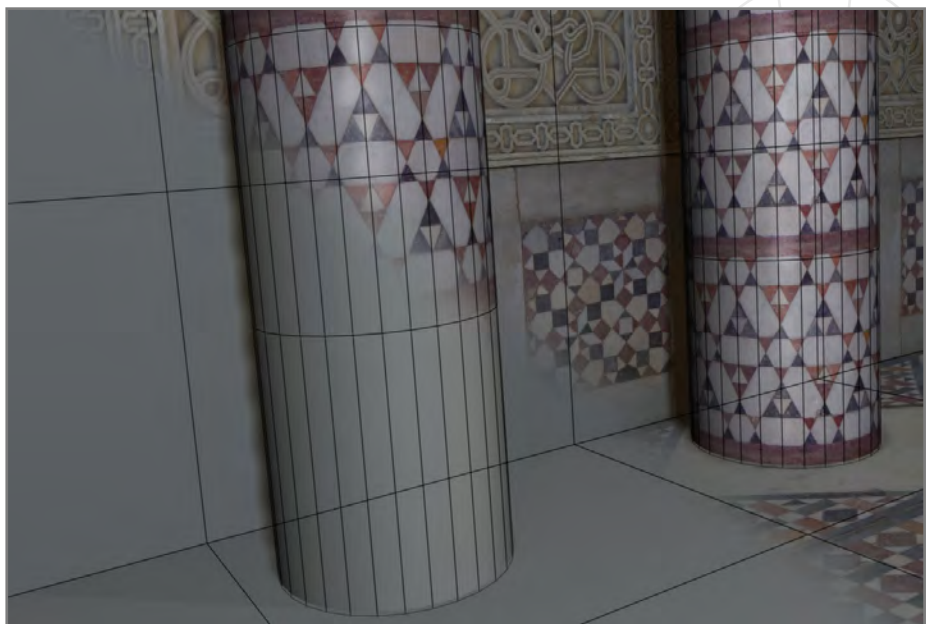
You will often find overlaps with all of the above jobs and in a games studio artists may be called upon to model and texture components in the game and maybe even

concept stuff if they are good enough. This does not however apply so readily to animators who have in some ways a more specialised role that often will not involve anything else. They will use particular aspects of a 3D package that are purely concerned with animation and will not necessarily need any knowledge of modelling, texturing or even drawing although this is an area in which they often begin their careers. Studying expression and motion in both people and animals through a succession of rapid sketches is probably one of the most useful exercises in starting out as an animator and will help when trying to flesh out a characters personality and working out how they move. In this sense a general grounding in figure drawing will help towards an understanding of movement and skeletal structures and knowing about weight and volume also has its uses. Training centered around traditional 2D animation will undoubtedly bode well for aspiring animators wishing to learn the ropes as well as the obvious 3D animation courses that are becoming increasingly numerous. It probably makes more sense to apply directly to a college specialising in 3D animation as it will provide practical skills used in industry

although animation is similar to drawing in the sense that it is often a skill one is gifted with and cannot be entirely learnt. There are many technical aspects that can be picked up to enhance the work flow and quality but having a sense of timing and weight is more often an intuitive response rather than an academic one. Having access to almost any 3D package that incorporates animation will prove effective and packages such as 3D studio Max utilise character animation tools such as Character Studio which are specifically geared towards these ends and are common among game developers.

## OTHER ROLES

These four categories are only a small number of the types of jobs available in the computer graphics industry but they are perhaps the most numerous and are common in nearly all areas including film, TV and games development. With the obvious exception of concept artists they are also the key components of most 3D software and are inclusive to almost all computer graphics done today. There are of course other jobs I have not mentioned including compositing





which is a part of post production and uses programs such as Shake and Combustion and involves combining live action and computer generated effects together in a single scene. Other roles include people who specialise in lighting and rendering and would perhaps have knowledge of studio lighting, photography and possibly cinematography and would require a technical knowledge of lighting parameters and various renderers. Another area which is viewed as being quite specialised is that of Matte painting which is now a digital field, where once these were paintings done on glass with live action plates projected onto them into sections left blank by the artist. Although it is a 2D discipline, nowadays artists incorporate elements of 3D, photography and painted elements to come up with imaginary scenes that fool the viewers eye into believing something exists when it doesn't but still remains a painting skill. Two final key roles particularly important within the film industry are those of rigging and skinning and are purely concerned with animation and how meshes deform. All characters require some form of rig set up or skeleton in order to be handed over to the animator and research into the kinds of motion being asked for and the types of controls needed to fulfill these demands will be imperative. When a rig has been set up with the various controllers and assigned to the model it would then need to be skinned. This is a task that involves using envelopes to assign different weights to the vertices on the mesh which will enable a realistic deformation of the geometry when the rig is animated. For example when you raise your arm the skin across the shoulder and chest is also stretched and this is the kind of quality that falls within the task of skinning. These last two jobs are perhaps more technical than artistic compared with the rest and are possibly more difficult to train for but are still important roles in the industry.

## CONCLUSION

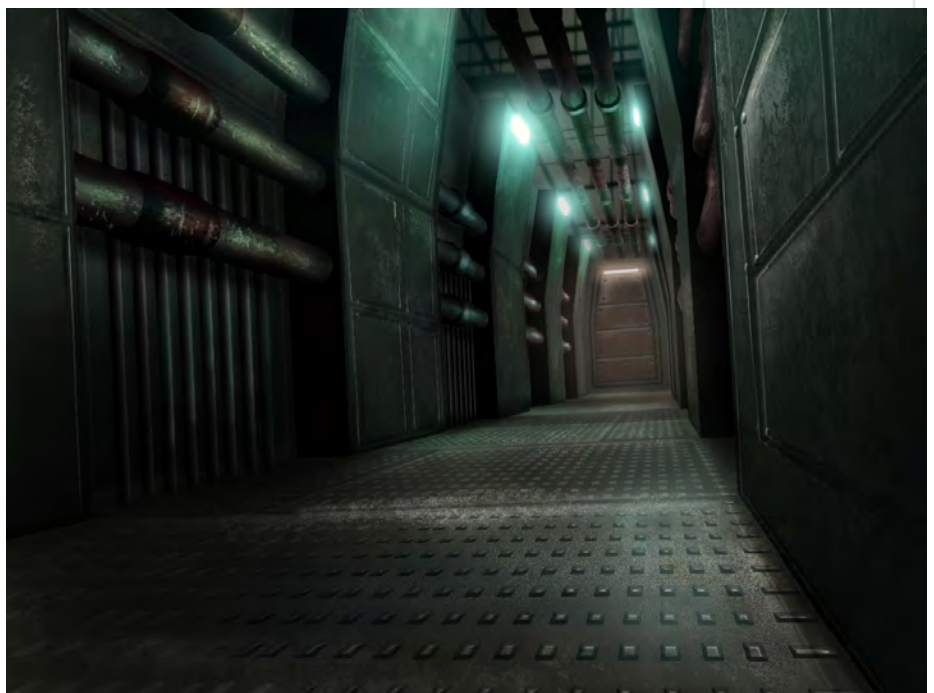
Even though tasks become more specialised as technology advances there are still many people who work across a number of disciplines and depending on your skill sets more than one job may be open to you. It is a good idea to get a basic grounding in as many elements as possible to begin with as this will enable you to understand the demands and requirements made by others in the graphics pipeline. Modelling, texturing and animation are the three key building blocks in 3D computer graphics and knowing a little of each will certainly not hurt and you never know, you may discover a hidden talent or passion. By getting acquainted with each you will be more versatile and able to adapt more readily if need be. Skills in traditional art will invariably contribute towards your success and will not go wasted. Remember that this may be a relatively new medium but nevertheless draws upon a long history of drawing and painting techniques pioneered through the use of line and colour and indeed some of the most

successful veterans have trained and come through art institutes be them modellers, matte painters or animators.

So if you have an interest or passion and have the motivation to pursue it then pick up your pencil or mouse and start practising and learning - you have to start somewhere and no matter how insignificant your sketching or modelling may feel just remember that all accomplished artists were once inexperienced like you. Practice is key and if you have a desire then you are half way there...

## RICHARD TILBURY

*is an experienced 3DS Max Artist. working on Award winning titles rich was previously employed as a Texture and Character Artist in a prominent London Studio. He is now the lead artist at 3DTotal. Rich produced hundreds of textures for the Total Texture CD Volumes and is a principle author of forthcoming book publications. Rich has a BA Hons Fine Art, and an MA in 3D Computer Graphics attained at the National Centre for Computer Animation, UK.*







# Interview

Blur

## PAUL TAYLOR

CG Supervisor/Writer/Director

Blur Studio

USA Studio Size : 75 employees (approx)

### How was the studio Formed and when?

10 years ago by Tim Miller and David Stinnett.

Both ex-Sony employees. Check out

[www.blur.com/about-us](http://www.blur.com/about-us) to get the official info.

### What was your experience (industry or

otherwise) before forming / joining the Studio?

I'm a graduate of the Academy of Art College in San Francisco. I began my career as a 3D animator and art director with game developer Amazing Media. I later worked as a contract animator for Time Warner, Microsoft, 3DO and other companies. In 1996, I co-founded BigWig Productions, a multi-media game company whose clients included Harper Collins



Interactive and two years later, I co-founded Spankhole Productions, which specialized in game cinematics.

### What Projects have you worked on?

Since joining the company in 2000, I've worked on and supervised a wide variety of projects, from music videos, game cinematics, commercials, ride films to short and feature films. My credits include the games "Return to Castle Wolfenstein" and "Blood Rayne", "Warhammer 40k: Dawn of War", the ride film "SpongeBob SquarePants-3D" and the broadcast network image campaign for Kid's WB. I also served as layout and editorial supervisor for a series





**What are you currently working on?**

A top secret test for a potential feature film and a game cinematic for Aeon Flux. I'm also developing a feature idea from a short that I wrote about zombies!

**What Projects are being prepared for the future?**

We may get to do George Romero's Land of the Dead game cinematics and I'd love the chance to do another Warhammer 40k cinematic.

of animated shorts that Blur produced for the best-selling Disney DVD release "Mickey's Twice Upon a Christmas."

With Blur Studio founder Tim Miller, I co-directed "Aunt Luisa," the studio's first animated short, which was short-listed for an Academy Award nomination in 2002. I also wrote and directed the animated short "In the Rough," which made it to the Oscar short list in 2004.







**What has been your favorite project so far?**

In the Rough – the short film I wrote and directed. Close behind that would be the Warhammer 40k Dawn of War game cinematic.

**What kind of Studio atmosphere do you have?**

It's a casual vibe. We don't have any cubicles – it's basically a big open space with long desks people share. So it's nice if you have a question about how to do something you can just walk over and talk to a neighbor.

**What did you really want to be when you grew up?**

You know, I can't remember ever wanting to be anything in particular. I was always drawing so I guess I assumed I would wind up being an artists of some kind. I also dabbled in really crude comics when I was a kid so maybe that is where the storytelling side comes from.

**If you could re-tell a story on a movie screen, or remake a film using animation, what would it be?**

Heavy Metal. The first one! Tim Miller, our Creative Director and the Executive Producer on the short films, came up with the idea. It would be all new stories and music. I think it would ROCK!!!

**What makes you get up every morning and go to work?**

I could say it's the opportunity to work on

REALLY cool projects with some of the most amazingly talented people working in the CG. But in truth, what really gets me up (and able to do those things) is my dog Coco jumping around impatiently waiting for her morning walk.

**Whats the Audio track for the studio whilst working?**

You know, we used to have music playing non-stop. But now it's just the humming of the computers we listen to.





learn the secret ways of the ninja if you really paid close attention.

**What would you change about the studio and why?**

I'd fill in some of the holes in the cool industrial concrete floor near my desk because the wheels on my chair keep getting stuck in them.

**Carpet or wooden flooring?**

See above

**Where did you get inspiration for your last movie from?**

We haven't done a feature yet. YET! But for the short "In the Rough" I've been told it's an allegory of my life while courting my wife. But I don't believe a word of it!!!

**Whilst being interviewed by us, what should you really be doing?**

I'm Directing a test we are doing for a potential feature film project.

**Do you think there are too many questions in this interview?**

Yes!!! But they are kind of funny so that's O.K.

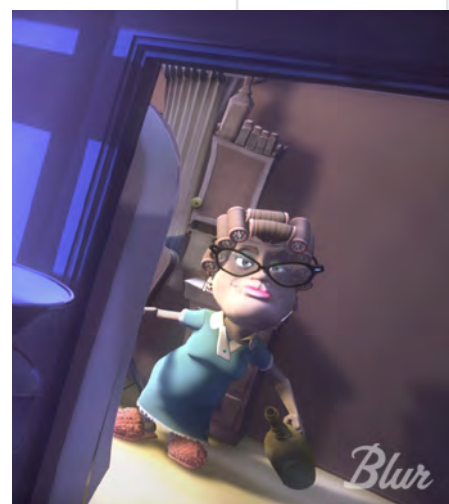
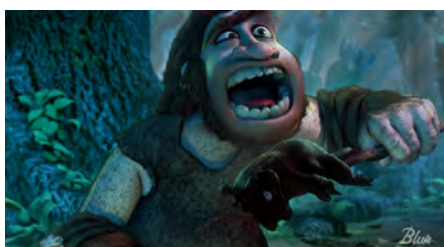
**What was in your portfolio when you applied for this job?**

3 cinematics for the same game which never

films for kids and adults. Final Fantasy put the kabash on adult genre movies done in CG but I think Blur is the company that will be making some sci-fi, fantasy, and even horror/action movies real soon! Oh, and my ultimate goal is to be one of the writer/directors for these films! I'm keepin' my fingers (and my eyes crossed).

**Thank you for answering these questions for us.**

You are very welcome. Thanks for having me.







Interview

## AN INTERVIEW WITH KRISHNAMURTI M. COSTA

Hi could you tell us a bit about yourself?

My name is Krishnamurti M. Costa (aka Antropus). I'm a 33 year old Brazilian self-taught CG artist living and working in California since June 2004. I have been working professionally with CG for 3 years, but have been involved in it for about 12 years. I'm currently employed as Staff Character Artist at CafeFX, a Visual Effects studio in California USA, who are responsible for the effects for movies like Sin City, Panic Room, Hulk, HellBoy, The Aviator, Armageddon, Sky Captain among others. Three years ago, after winning the Anima Mundi Festival (the biggest animation festival in Latin America) as animator and art director I started to work on another short-movie called "SenzaAzione", which is still in progress, as a personal project, and people started to know me because of the work in progress images I posted from this project (the Plumber, the Old Lady, the Animator Guy...). I'm also known by my tutorial series published on my website and also on some online CG resources sites like 3DTotal.com. My main tools are Maya, Zbrush and Photoshop but I can use pretty much any software if needed. To know more about my work, please visit [www.antropus.com](http://www.antropus.com)

**What first got you started in 3D?**

At the age of 16 or 17 using my Amiga 500, I had my first contact with 3D but it was years later at the age of 21, I had my first PC and started to work with 3D Studio Max 3.0 for



Copyright Krishnamurti "Antropus" Costa 2004

DOS. I never stopped after that, creating and experimenting in CG as a hobby, using my spare time from being banker which was my full time job since I was 16.

**You have just moved to a new studio, how are you finding working there?**

CafeFX is great. I got the job at the exact moment when the studio is beginning to growing. My contract is for 3 years, which is

not so common in the CG FX industry where the contract is project based or year based.

I'm a staff member, working as Character Artist in a new department responsible for the creation and animation of any kind of digital character. I have freedom to try different solutions as I'm working as modeller, facial rigger, texture artist and animator. In fact, apart from the design, I do pretty much everything concerning the character creation

and animation. The studio have some amazing artists to exchange knowledge and find solutions with. I making a good money and have my work respected. I just going to finish saying that I'm VERY glad and happy to work here :-)

You have just won the Master and Servant Competition run by CGTalk and you have previously won the Machine Flesh one as well. Both have been quite unusual. Do you like producing these sort of pieces of work?

Yeah! I think it's a great creative exercise,

more than a technical exercise. For these challenges I tried to think that I was working for a "client". The clients are the judges and the CGNetworks/Sponsors. They asked me to produce something based on the rules and they gave me 2-3 months to meet their expectations concerning the theme and as always I to do my best to complete it in the best way I can using the time they gave me. At the end I'm very tired and not completely happy with the result, as always, but at least I'm happy that I tried my best using the time available. Using this method, I'm not thinking

about creating something for myself, but for my "clients". Some people try always to do things before they read the rules and at the end they try to justify their work in some way but I think the image has to speak by itself and having it in mind I prefer to read the rules at least 10 times before I even start to work on the first sketches. I normally think a lot before to start my first sketches and when I start it is because the work is at least 80-90% done in my mind. I also enjoy these challenges as opportunity to make friends and exchange techniques with others and also the spirit behind these competitions.

What do you like most about entering these competitions?

Meet other artists and friends that are there to learn and exchange knowledge as I'm doing and also because the competition itself, that's always exciting for me. I love competition, in a good way. In some way, I'm the only enemy that I have in these competitions because I'm always trying to surpass myself and at the end I'm frustrated because I think the final work could be at least 10 times better but I have no time enough anymore. The important thing is to finish it and be sure that I tried my best in the small amount of time I had.

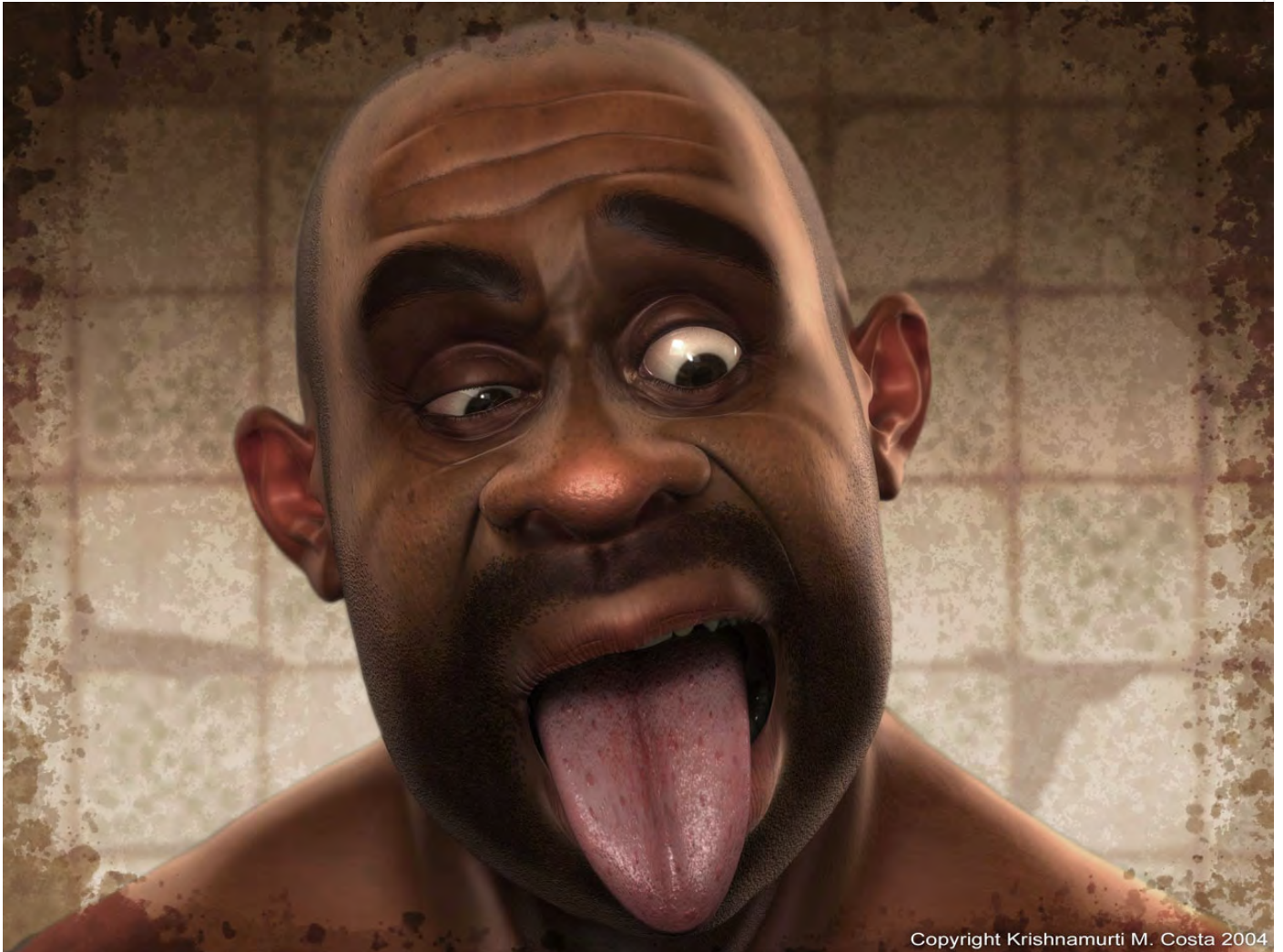
If you could create yourself as any 3D character whether it's in a game or a film who would it be?

Probably some kind of mutant-insect, that's exactly what I think I am :-)

1. A mutant because this is my nature as an artist and human being. We are always changing, since we were born, following the flow of our lives. I already moved from city to city, country to country, family to family, relationship to relationship and I'm still a happy and positive person. My father and mother already passed away and I consider myself today as someone without a "root". I can live







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and be happy in different places with different people and I think this is great for me to continue working and producing art.

2. An insect because I'm conscious that life is short and I'm trying to do my best and make myself and people close to me happy. I'm no more than an insect, my life is passing quickly and I know how tiny I am. I don't expect any reward or to be someone that I'm not. I just expect respect for what I'm creating as an artist and human being even if just my wife or some friends are the only ones that think this way.

**Which part of 3D modelling process do you enjoy doing the most?**

I can divide the 3D modelling process in only

three parts: concept, technique and realization.

The concept is my idea or ideal about a subject I have in mind. The technical part is the boring part. Cut polygons, move edges and vertices, planning edge loops... everything is just very technical. More polygons for more details doesn't mean better model but (sometimes) requires more technical skills and people can't understand easily that a good low or medium poly model with a good structure for deformation can be much harder to create than a very dense mesh, full of wrinkles created by always using the same 3 or 4 techniques. The realization is the final thing, when I can see my concept through the "boring part" to the final and "alive" model. So, I can say that to bring a bunch of boring polygons to life is the part that





I enjoy the most :-) With Zbrush the boring part is minimal and I can concentrate in the fun and more interesting stuff.

## Which sector of the 3D Industry would you like to work in?

Character animation/modelling/texturing etc. I love character work and my nick name "Antropus" comes from Latin, meaning "human being" as a whole. To work on different things is possible only in smaller studios. The bigger the studio, less are the possibilities of working on different things. Creating a character and bringing it to life is a great realization and I can feel more like an artist when I can do this. Doing only one thing in a big studio (only modelling, for example) I will probably be very frustrated and i will feel more like a technician than an artist. But this is only my personal opinion, of course. I have friends working on only one very technical thing, they are happy doing that and I just have to respect it.

## And what would be your ideal job?

The one I have right now :-)

## Where do you see yourself in a 10 years time?

I have no idea! 10 years ago I was married with my ex-wife, working in a bank, living in a very small city in Brazil and driving my motorcycle!

Today everything is just so different! 10 years is a long time in our short lives. Maybe taking care of my children that I haven't had yet. Maybe still working in the industry, using some futuristic and revolutionary new software/hardware that will make me feel even more insignificant as an artist :) Who knows?

## Who inspires you artistically?

It will always be the old masters. They deserve all my respect. Not only painters like Caravaggio, Goya, Dali, Toulouse-Lautrec, Matisse, Tiziano etc. Not only sculptors like Michelangelo, Rodin etc. but also musicians like Bach, Beethoven, Mozart, Rossini among others. All of these guys are a profound inspiration to me since I was a kid and I'm sure that they will follow me to my last day. I also get inspiration from the nature, my wife, friends, other digital artists, cinema, design. Everything inspires the artist. If just a few things or people inspire someone and they consider themselves to be an artist, I can tell you that guy is a liar or his artistic universe is very small and limited :-) Everything, from a disaster to a newborn baby can be a font of

inspiration.

## One piece of advice you would give to any artist looking to get into 3D?

People have no more reasons to complain about the lack of information. The internet is your friend. Google can help you a lot and CG online resource sites are full of great tutorials. Great art and animation schools all around the world. If you are not interested to search things or work hard I feel sorry to tell you that maybe you will have no future doing 3D and even worst if you are planning to get into the industry. People working in the industry are curious by nature and responsible for new techniques that a lot of times come from a mixture of ideas from different sources. Working hard and being curious you can have much more of a chance to get into 3D. One thing you can't forget: technique is the smaller part! To learn a new technique is the simplest thing. What you really need is good art background to succeed doing CG in general. The best CG artists I know are great traditional sculptors, painters etc. More art fundamentals can make your transition very easy sometimes. The mantra is "curiosity and hard work..."







# Tutorial

## JOAN OF ARC

We bring you Michel Roger's famous 'Joan of Arc' tutorial in Maya, Lightwave, C4D & XSI, if you are a Max user and this is new to you the original is free and can be found in French as Michel's site <http://mr2k.3dvf.net/> and in English at [www.3dtotal.com](http://www.3dtotal.com).

## INSPIRING

If there has been one single tutorial that has educated and inspired more budding 3d artists than anything else, this complete step by step project by Michel's must be it. The community is in debt to him and next month we will be interviewing the man himself! The Tutorials are free to download for 3dcreative customers.

For security purposes you will need to email

**[joanofarc@zoopublishing.com](mailto:joanofarc@zoopublishing.com)**

Including your order confirmation number in the body text to obtain your unique password for the download area.

click software logo to get password



SOFTIMAGE | XSI



resource images

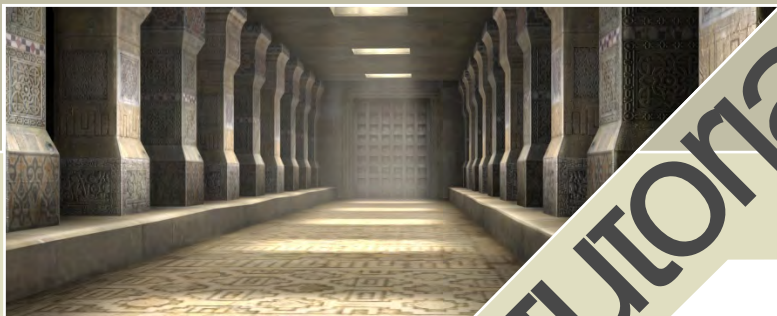
Download the 'Front' and 'Profile' Images for modeling Joan of Arc from the 3dcreative web site here:



front



profile



Tutorial

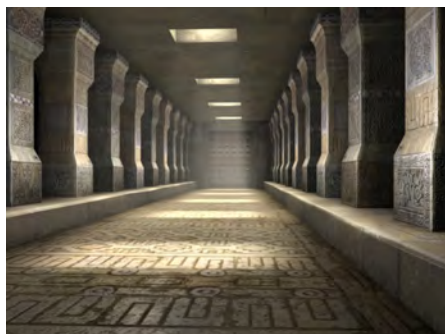
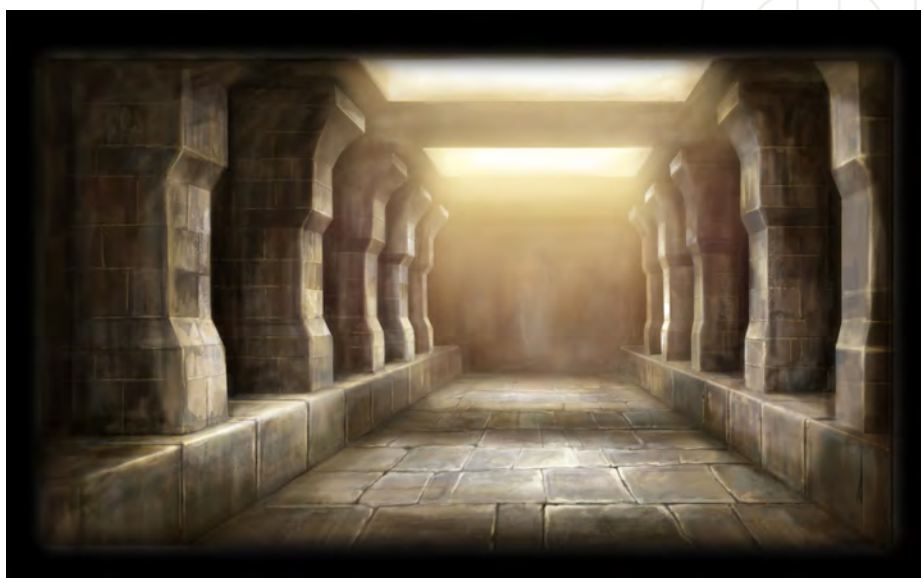
# THE CORRIDOR

BY RICHARD TILBURY

This particular scene was designed to be simple in terms of the geometry involved and therefore putting a little more emphasis on the texturing aspects.

## THE IDEA

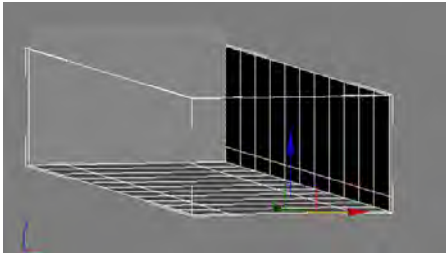
The idea behind the project was to model a single, straight corridor that ended with a doorway and one that would be textured using contrasting sets from the 3D Total Textures collection to convey scenes from different time periods. To help add interest and utilise some of the different images included on the CD's I decided to include some geometry specific to each scene that would help demonstrate these qualities without radically altering the scene itself. For example the ancient stone corridor includes stone pillars that run along both walls where as the Sci-Fi orientated environment substitutes these details with wall mounted pipework and panels.





## MODELLING STAGE

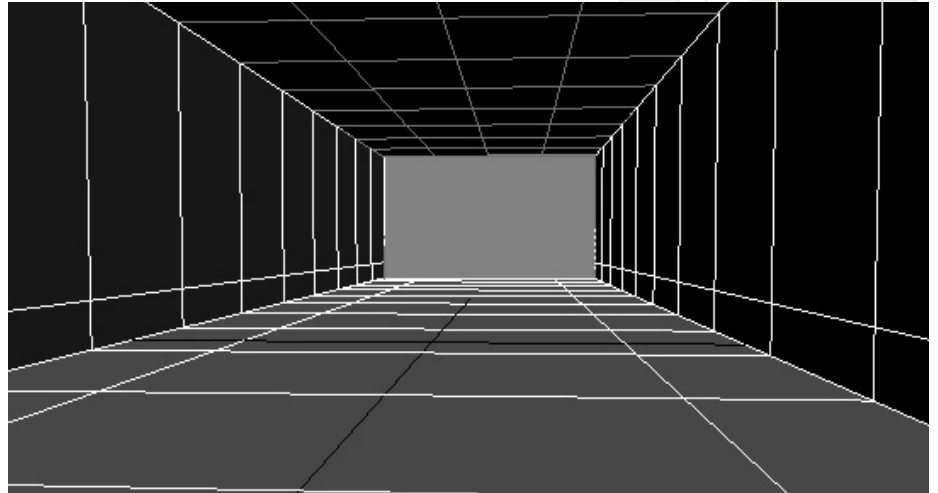
1. The first stage was to build the scene which comprised of a simple box which then had the normals flipped to invert it. I added a number of segments along the length in order that a section could be mapped and then duplicated.



2. With the initial stages complete it is time to start considering the different lighting conditions that will help differentiate the scenes from one another and decide if this will have a bearing on the geometry. For the stone

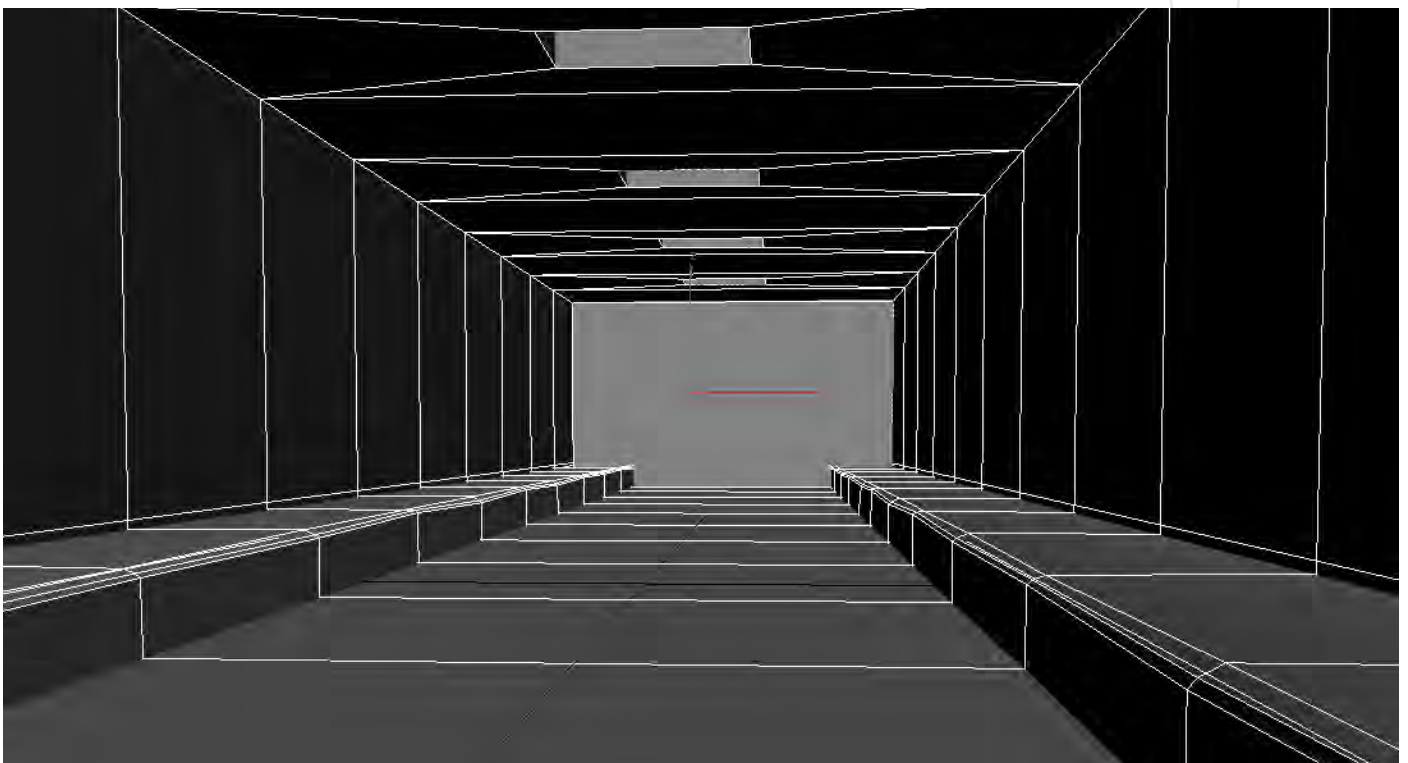
A camera was placed in the box very early on to establish an appropriate angle from which to view the scene. I find that it is useful to position a camera early on so as to get a good idea of which parts of the scene will be

more visible etc. I also find that by detaching the walls, ceiling and back wall it may help later with finding a lighting solution with regards to excluding certain objects from being illuminated but this is by no means crucial.



corridor I decided on a natural light source that would be visible through a number of ceiling vents or skylights and so these had to be incorporated into the plane that made up the roof. To add some architectural interest I also

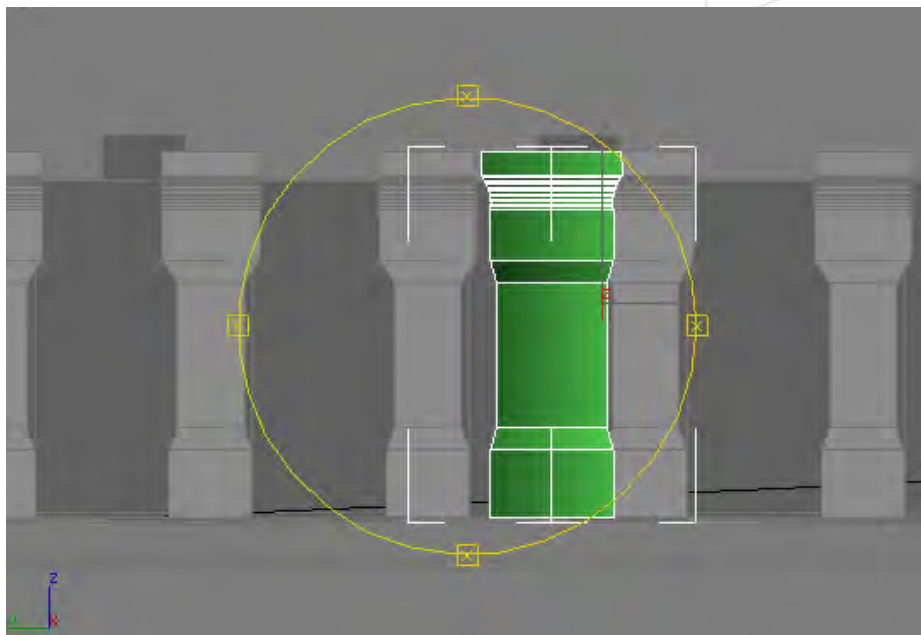
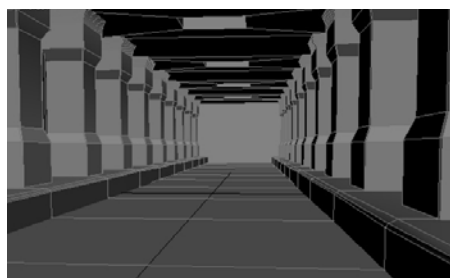
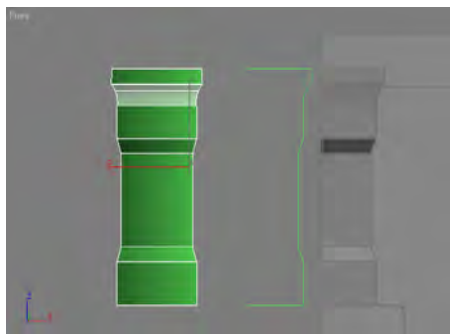
put in two raised sections along the two walls upon which to mount a row of pillars that would vault upwards to the roof.



3. You can see the two rows of pillars in place in the camera view and if we look at the modify panel down the right you will notice that these are made using a simple spline that has had a Lathe modifier applied with the segment section set to 4. All of the vertices are set

to corner except one which is set to smooth and has resulted in a curved line towards the top section. Once this has been done it can be scaled and fitted into the scene and any unexposed poly's can be deleted such as the top and underside faces and the ones adjacent

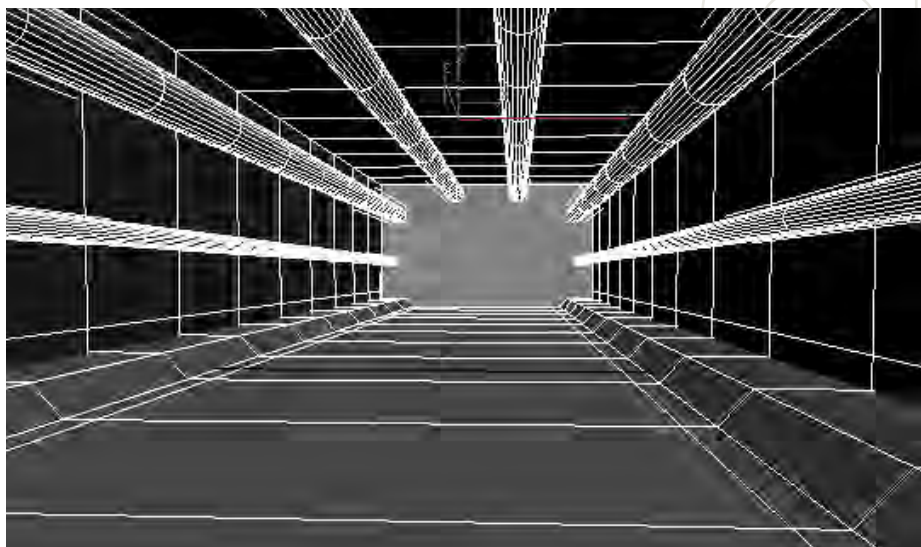
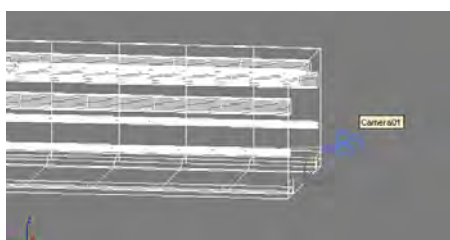
to the walls. This pretty much completes the modelling phase of the stone corridor and now it is time to deal with the Sci-Fi version.



4. When it comes to the futuristic version we can use the same scene as a starting point and simply delete the pillars and raised platforms. I decided to raise part of the floor near the edges to create a slightly different feel to this scene but the lower level still corresponds with the floor in the previous

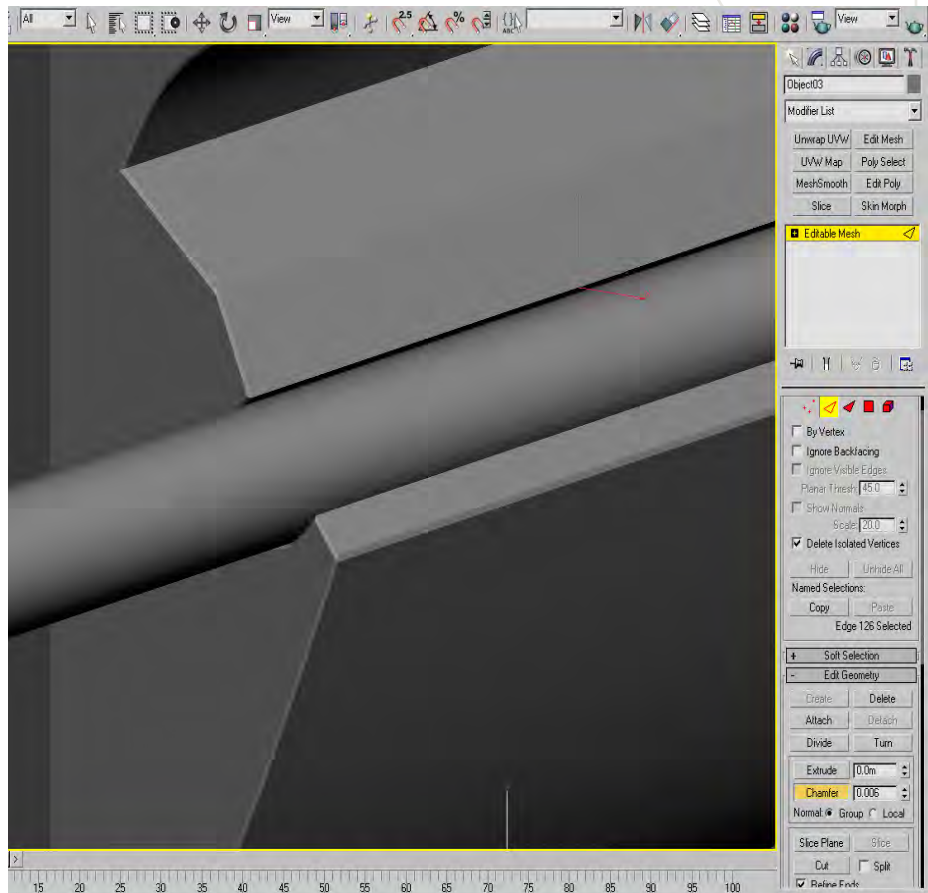
scene. The next step was to create some basic cylinders that will represent the pipes that run along the walls. Apart from the two ceiling mounted ones these are placed just off the walls so we can build some wall supports that hold them in place. To do this we first position the pipes and then using a line tool

we simply trace around them to create the brackets as seen in Figure 4. I set the initial and drag type for the spline to Corner and then after converting it into an Editable spline just used the Refine tool to add extra verts around the cylinders so as to keep faithful with their shape.





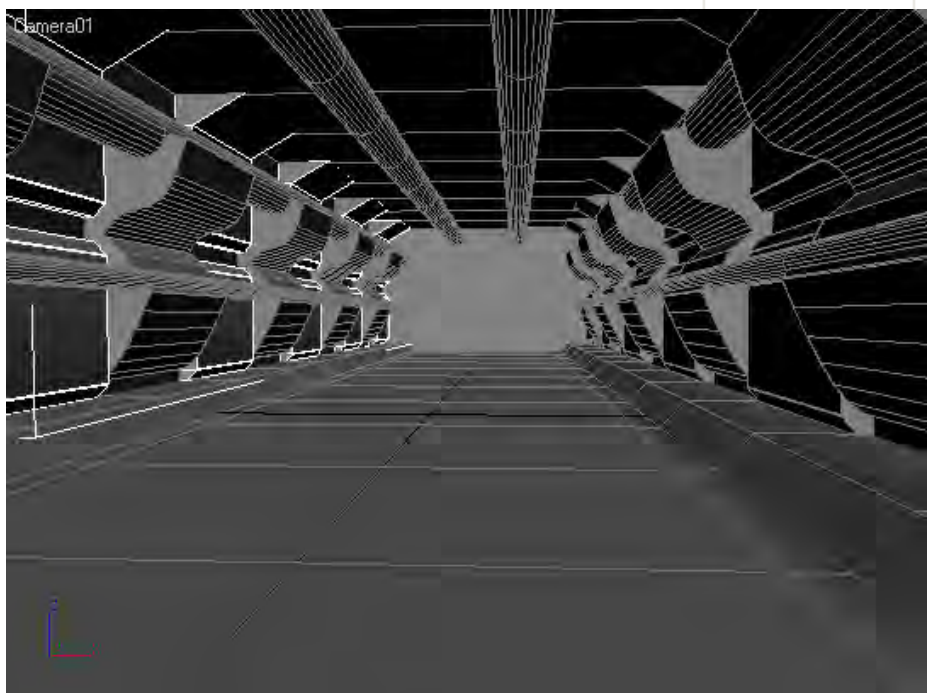
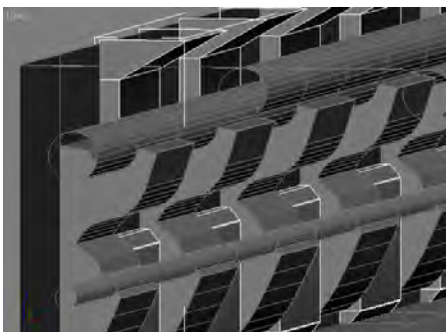
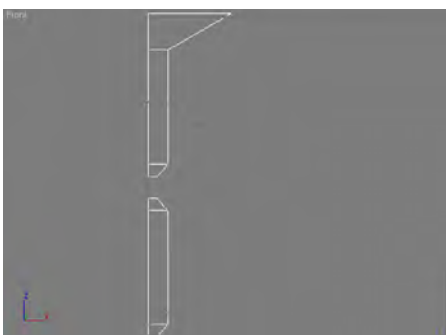
When happy with this I Extruded the spline into the object seen in the illustration and after converting it into an editable mesh selected the outer edge and applied a Chamfer. The same principal can also be seen along the edges of the raised platforms in the stone corridor and equally applied to the edges of the pillars. It is a good idea to round off edges on objects in this fashion to help them catch the light and create a more convincing look.



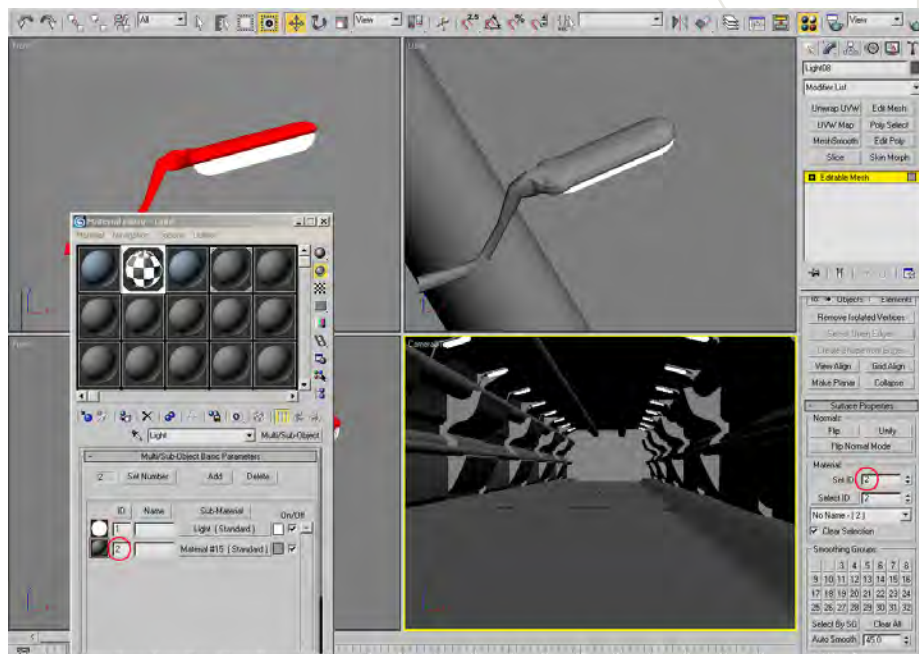
5. With these components in place we can now add some further panels that slot in between them along the walls. Because these

will be straight forward in shape we can make them from a simple box and just add enough segments to get the outline. Again don't forget

to chamfer the edges that will be visible and then scale the panel to fit neatly beside the existing ones.

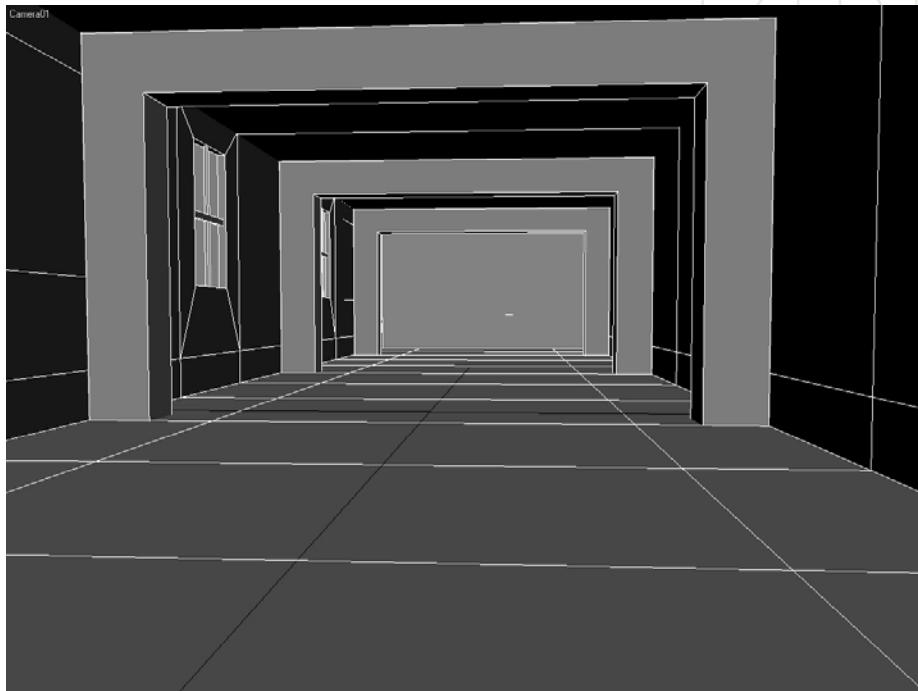


6. As this will be a different type of corridor set in the future I decided to use artificial light to illuminate the scene that would sharply contrast with the natural daylight suggested in the first version. As a result I decided to place a number of wall mounted lights spaced evenly down the corridor that would be suspended just above the large pipes. These will eventually cast small pools of light onto the walls and floor and help highlight the pipes as a feature. The lamps have been assigned a Multi/Sub-Object material with just two ID numbers, one of which represents the light itself and the other being assigned to the fixture. You can see in the material editor that the bulb material in ID slot 1 is set to white with full self illumination whilst the second sub-material is attributed to the lamp itself with an ID number of two (highlighted in red).



7. For the third version of the corridor I decided to set it in a more contemporary setting and plumbed for a conventional, everyday type of architecture that could be used to represent a hospital, school or even an office block environment. I kept this particular scene very simple in order to transform it through the texturing process and wanted to have a set of windows on only one side that would let in sunlight from the left.

RICHARD TILBURY





Tutorial



# MAKING OF WARRIOR

BY JUKKA TAHTINEN



## MODELLING

I'm going to go through the steps I took to create my warrior. I'm not going to go into too much of detail in every step, but more to show the workflow and how I think while working and the overall process making it. First thing I had to build was a generic body mesh of a man. I wanted to be sure that the armor parts

fell into the right places, and wasn't going to look strange or out of proportion. So, by having the whole body underneath and working out of that as a template, it made it easier to build the parts correctly. I'm always using and reusing my meshes, so I can speed up my progress in more complex scenes. That's why I used an earlier built mesh that I had already completed.

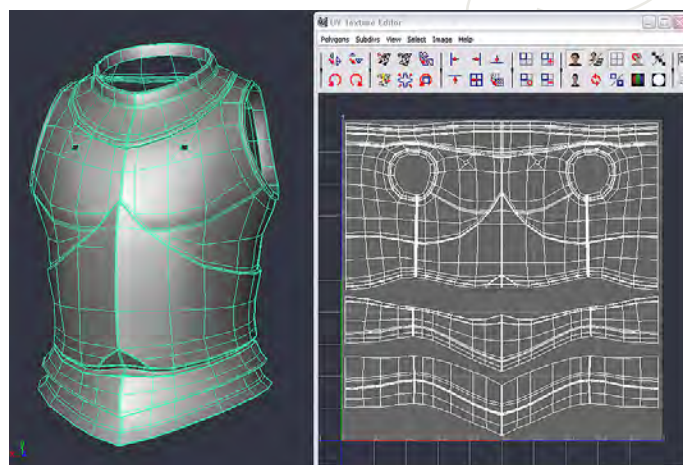
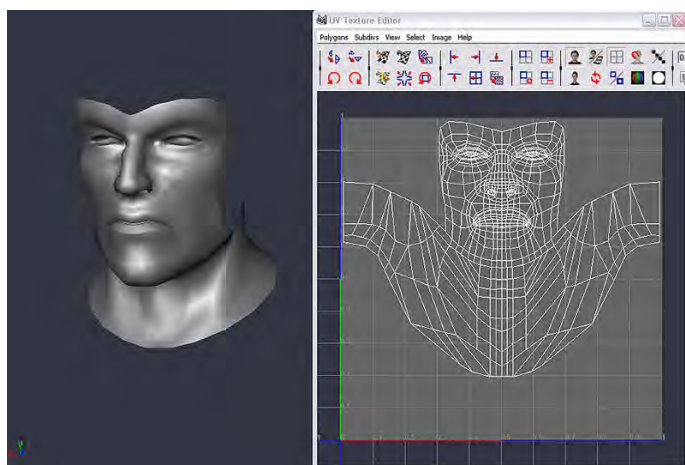
I modified it so it could be used as the warrior's base mesh. For inspiration when making the armour, I was looking in all kinds of places, Warhammer art, LOTR movies and pictures, spawn figures, comic books and anything that could give me some nice ideas.



When all of the armor parts were built and done and I was satisfied with the design, it was time to start preparing the model for Zbrush.

First thing to do was to apply Uvmap coordinates on everything before exporting it. I didn't want to Uvmap in Zbrush because I felt that

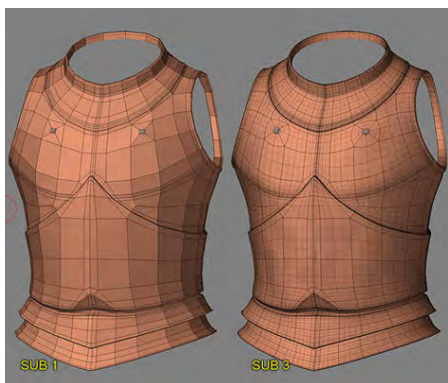
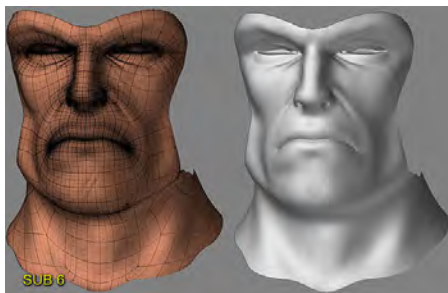
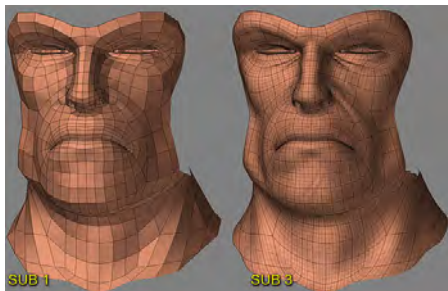
I had more control doing it in another 3d application than Zbrush itself.





## ZBRUSH

When all UV mapping has been done, it was time to take it into Zbrush. Zbrush imports and exports .dxf and .obj file formats. So by exporting the mesh from Maya to .obj file format made this step easy. The mesh was then smoothed or subdivided about 6 times, so I could paint or sculpt in the detail as I wanted.



The painting process was straight forward, just adding detail after detail gradually. And not adding new subdivision levels before I needed to. An important thing I had to remember this not to rush things, because at the same time as I was modelling/sculpting, I was also learning the program. I wanted to have a

expression on the face that was suitable for a warrior, so I used my own facial expressions as a reference when I was sculpting. When I felt happy with the result, I exported the displacement map from Zbrush, and by applying that image in Max as a displacement map, I could render the changes I had done.



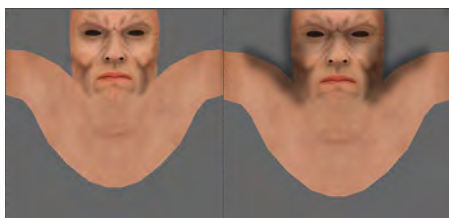
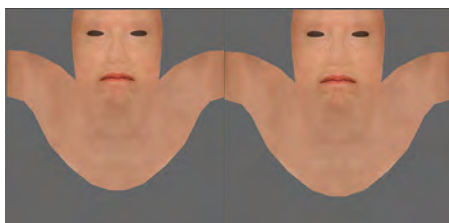
## TEXTURING

First part of making the texture was to get the base colour, no details really at this stage.

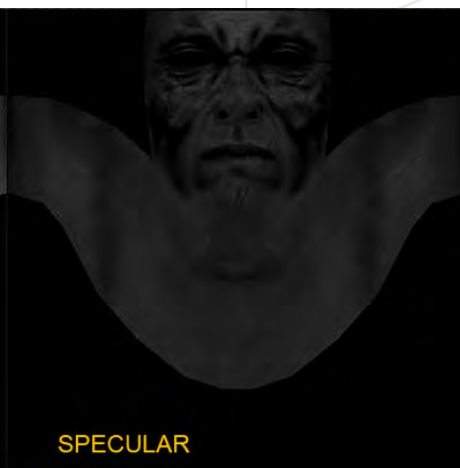
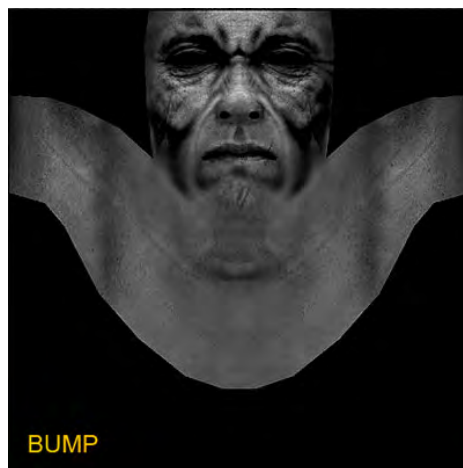
Then adding gradually, layer by layer more detail to it. A good trick I usually use is to start

around the eyes and mouth, when working on a face texture, and then fill in the gaps. As a last thing, I add shadows or dark areas where the edges of the helmet was going to be.

When the colour map was in a stage that I felt happy with it, I created the bump and specular map.

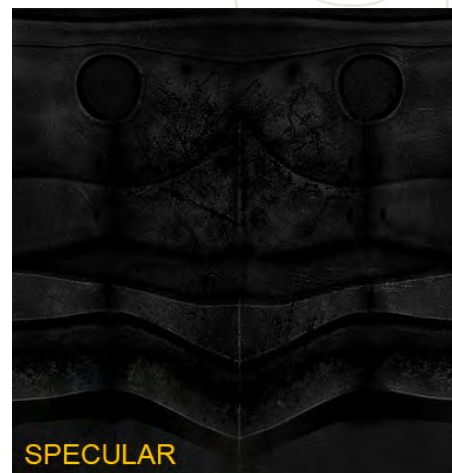
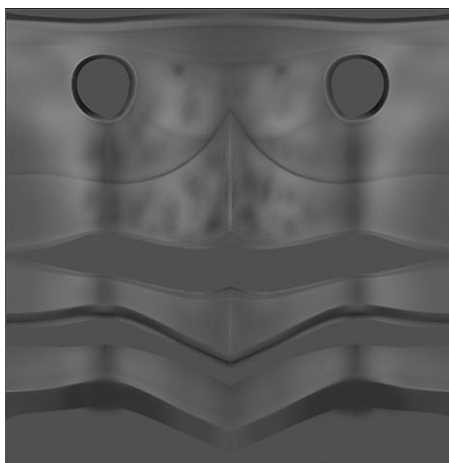


I used the same process to the armor as for the face. Starting off by having a base colour,



But in this case I could use the displacement map I got out from Zbrush, because it already

had nice shadow information in it. And then adding layer by layer more detail to the texture.



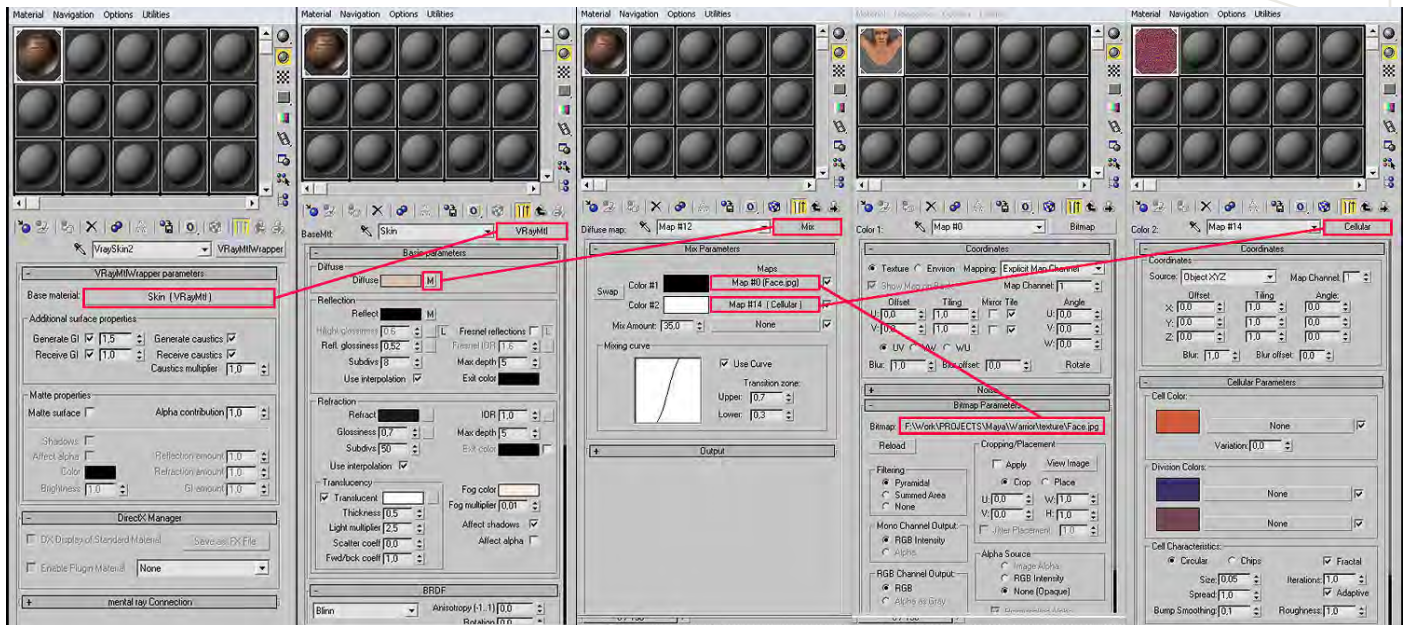


## RENDERING

I used Vray to render the warrior. Vray is a very fast GI renderer, and with some nice features

in it. The only down side would be that there isn't any special shaders for ex, skin, currently.

So since Vray didn't have a pre-defined skin shader, I had to create one myself



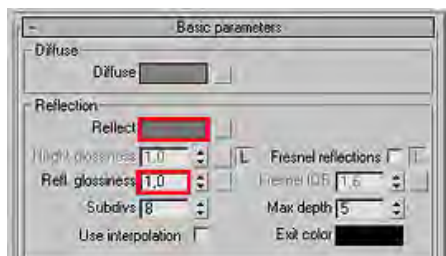
And here is how the skin looks like



When creating metal, the reflection is very important. So by increasing the colour in the reflection channel on the Vray material, from

black to a white colour, you are enabling reflections on the shader, also how much reflections, dependings on the colour value. A high value

on reflection glossiness, will result in sharp reflections. And a low value will result in blurry reflections.





So by using these parameters and in combining it with a specular, bump and a color map, one can get really interesting looking metal.

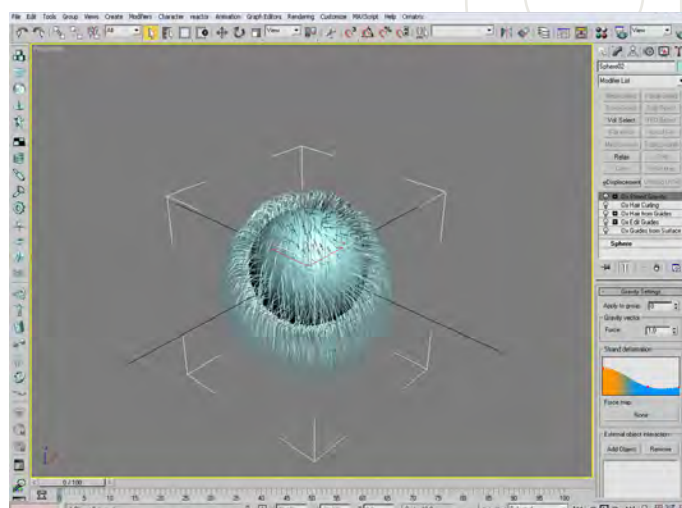
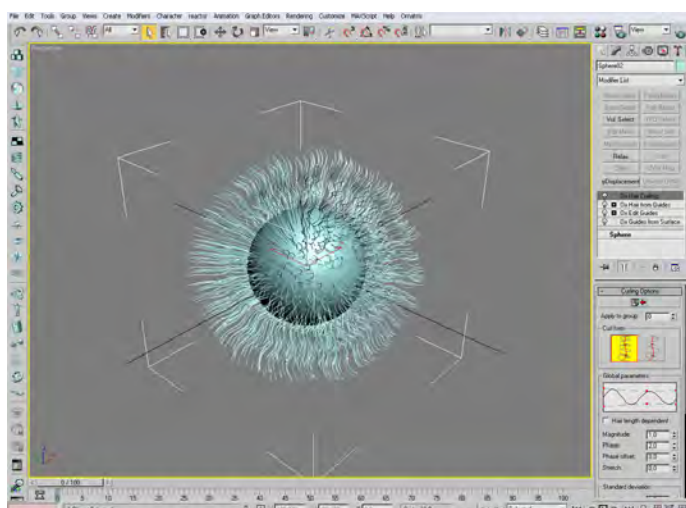
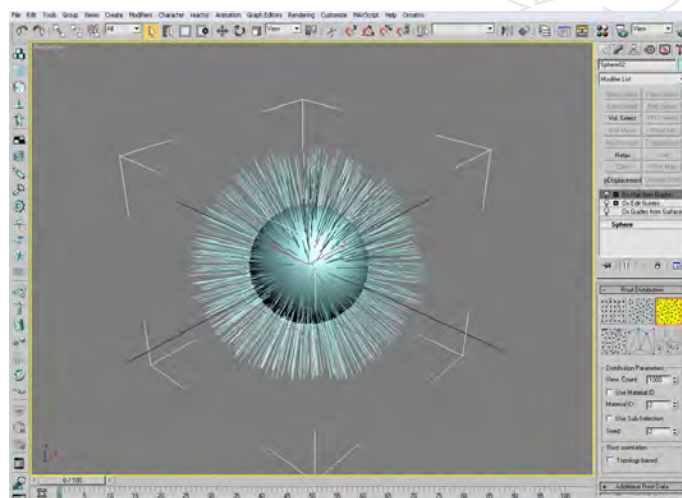
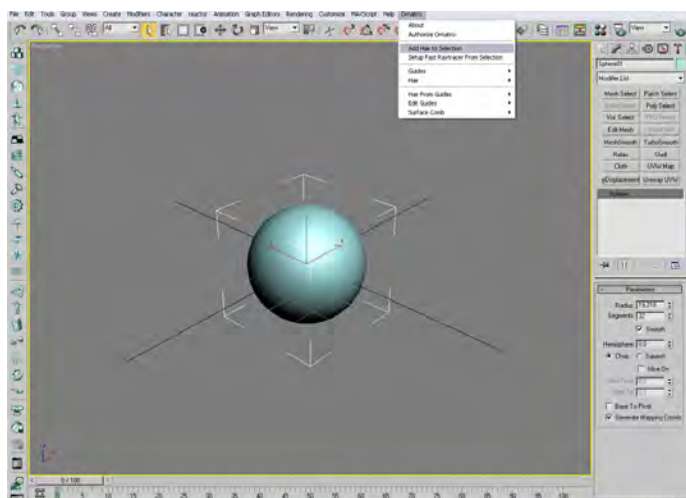


## HAIR AND FUR

I created the hair and fur by using Ornatix plug-in in max. It is a very powerful and easy to use plug-in. It works simply by selecting the object that you want to have hair on, and then

you simply just pressing add hair to selection. By using all of the control modifiers that comes with Ornatix, I was able to control the shape and look of the hair. And also, by using all of

the different kind of hair materials I could get even more control over it.



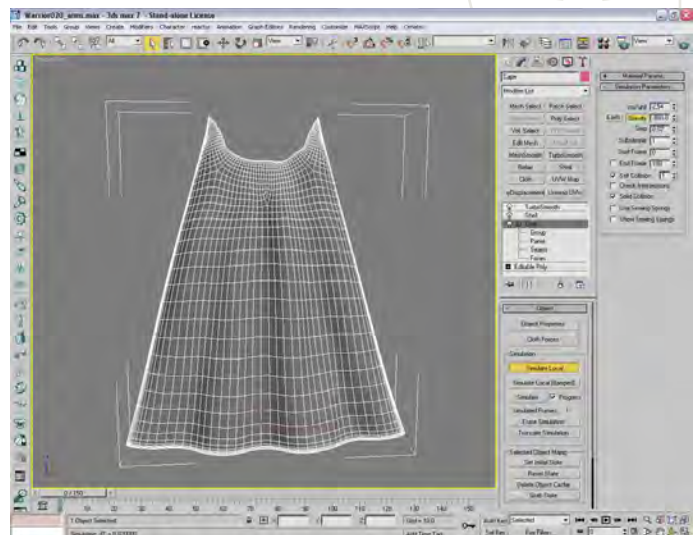
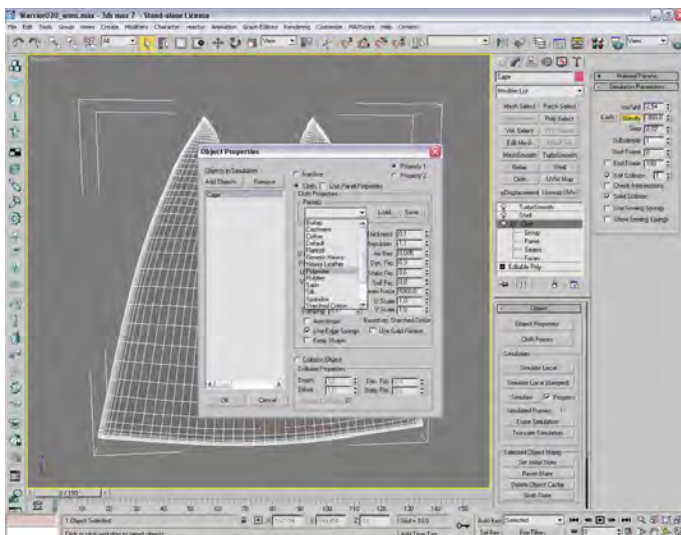
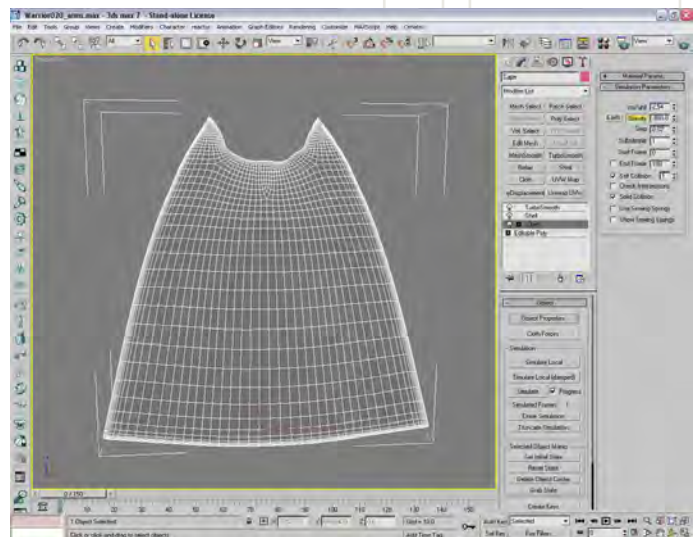
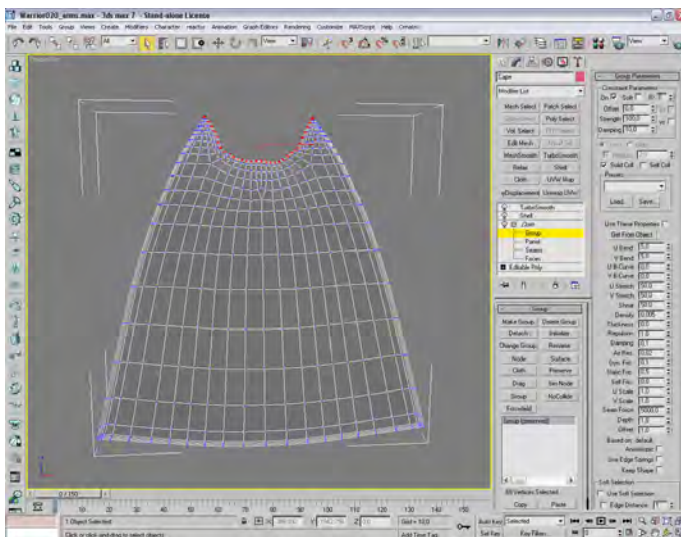


## CLOTH

The cape was created by using the same texturing methods as shown earlier. But with a added alpha map added to it, so that you can create all of the holes and make it look like it was worn and damaged. To help me making the cape hang and fold as cloth, I used the new cloth extension which 3d studio max has

and it is really easy to use and very simple. But still powerful. To get it looking like it was hanging from the shoulders of the character, first I had to add cloth to the mesh. Then by selecting the vertexes, and grouping them as preserved, those selected would not be affected by the cloth simulation, and the cape

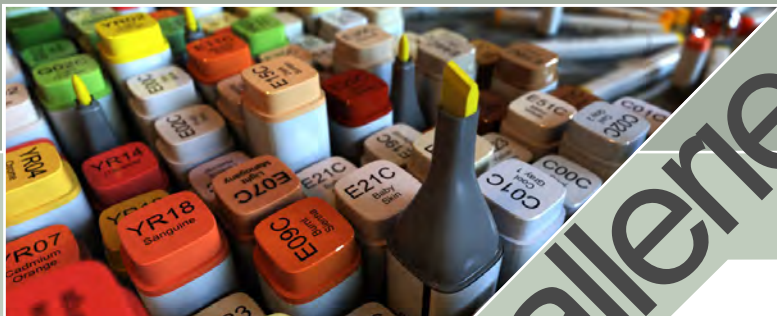
would be hanging from those. By selecting a pre-defined cloth type in the properties dialog, and making minor changes to the parameters, I started getting it looking and behave as cloth. Finally calculating it into place and getting it to fall down and look like a real cape would.



This has been the overall working process I used to make the warrior, and I hope this step by step making of has been useful and interesting. I also want to thank you for taking your time and reading this. Thanks

JUKKA TAHTINEN

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